

Inside Dope

By GEORGE
F. TAUBENECK



Learn to live and laugh —
thus delay your epitaph

**Our Great Common
Denominator—Baseball
Vanished Hopes
Public Complications
They Did Try
The Great Ted**

Our Great Common Denominator—Baseball

"Dope" tries real hard to be serious, intellectual, etc., on occasion. But you subscribers don't want us to be that way, very often—judging from your letters.

So, all right. We bow to the inevitable. It's World Series time, you want more baseball anecdotes, and here they are.

Branch Rickey, the Great Organizer, delivered blackboard chalk-talks to the St. Louis Browns prior to each game. He analyzed the team they were to play, and organized defensive and offensive moves.

"We're breaking even this year," a Brown player confided. "We win in the morning and lose in the afternoon."

Fancy-fielding Willie Miranda was doghoused by Manager Paul Richards of the Orioles. Why he incurred his manager's displeasure is unimportant to this story, because none of Miranda's substitutes could carry his glove.

"Yeah," Richards bittered after an agonizing week of short-stop errors, "tomorrow Ringling Brothers will be back in the line-up."

"What baseball needs today," Bobo Newsom was quoted, "is more talented fools and fewer businessmen."

Vanished Hopes

Of the 1957 Cardinals, St. Louis broadcaster Joe Garagiolo characterized:

"They have a Venus de Milo outfield—beautiful but no arms."

Sports writer tossed peanut shells out of the pressbox during a dull game between the Browns and Senators in St. Louis several years ago. One of the Browns' stockholders admonished:

"Those peanut shells are hitting people downstairs."

"People in this park?" exclaimed the scribe. "What a story!"

Vain Newspaper Headlines:

Loes Hurls Birds Over Kansas City.—*Charleston (S. C.) News and Courier.*

(Concluded on Page 10, Col. 1)

AMCA Outlines Air Moving Unit Ratings Program

CHICAGO — A program designed to protect specifiers and users against incorrect or improper performance ratings of air moving equipment such as centrifugal, axial and propeller fans, and power roof ventilators, was outlined by the Air Moving & Conditioning Association at a recent press conference here.

The program provides a means of identifying products which have been properly tested and their performance accurately rated according to a uniform procedure set up under the AMCA Standard Test Code.

In order for a manufacturer to qualify his product for this program, all tests and performance ratings must have been made in a test laboratory (either the manufacturer's own laboratory or a neutral one) which has been inspected and

(Concluded on Page 6, Col. 1)

Arkla Takes Over Servel Gas Cooling

EVANSVILLE, Ind. — J. C. Hamilton, president of Arkansas Louisiana Gas Co., of Shreveport, La., recently handed two checks totaling approximately \$3,675,000 to Duncan C. Menzies, president of Servel, Inc. here, to consummate the sale of Servel's air conditioning division to the gas company.

Approval of the transaction had been voted by Servel's stockholders on Sept. 11.

Hamilton announced that Arkla Air Conditioning Corp., a Delaware corporation and a wholly owned subsidiary company of Arkansas Louisiana Gas Co., will manufacture and sell year-round gas air conditioning equipment, providing new capital to expand production, sales, and promotion on a nationwide basis.

The units to be produced by the new Arkla Corp. will bear the trade-mark name, "Arkla-Servel," Hamilton said, and also will carry the trade-marks "Sun Valley" and "All-Year."

Hamilton emphasized that the transaction involves only the gas air conditioning division of Servel and not the appliance division, which manufactures gas

(Concluded on Page 21, Col. 3)

Bours To Head Sales Of 'Freon' Products

WILMINGTON, Del. — Appointment of William A. Bours, III, as director of sales of Du Pont's "Freon" Products Div., succeeding Robert J. Thompson, who retires at the end of the year, has been announced.

Thomas D. Johnson, Jr., for the last four years manager of the division's aerosol propellants

(Concluded on Page 21, Col. 1)

'57 Room Unit Sales Seen Near 1,500,000 Multi-Use Portable Leads Carrier '58 Line

Some See Field Stocks Greater Than Forecast

DETROIT — With the estimates by the Air-Conditioning & Refrigeration Institute of room air conditioner inventories at 750,000 units (as reported in the Sept. 23 issue of the News), it is now considered likely that the 1957 room unit sales total will be close to the 1,500,000 figure.

One way of arriving at such a figure is to take into account certain statistics on which there is more or less general agreement. The figure of 1,850,000 is generally accepted as the number of room air conditioners manufactured since Sept. 30, 1956. It is generally agreed that there were about 400,000 units in manufacturers' and distributors' inventories at that time. Deduct the 750,000 current inventory figure, and the result is the 1,500,000 sales figure for the "air conditioning year."

Principal argument with these calculations comes from those who argue that "field stocks" in the hands of distributors and retailers may be greater than

(Concluded on Page 4, Col. 5)

Gibson Offers New Cooling Unit Line

GREENVILLE, Mich. — A new line of all-purpose, air-cooled air conditioners and heat pumps in 2, 3, and 5-hp. sizes will be marketed in 1958 by Gibson Refrigerator Co.

The announcement by C. J. Gibson, Jr., president of the Hupp Corp. division, stated that the self-contained units will be available as air conditioners and as heat pumps complete with simplified controls for fully automatic operation.

Appointment of Albert F. Johnson as product manager of the line, reporting to W. C. Conley, vice president in charge of Gibson sales, was also announced by Gibson. The new product manager succeeds J. L. Johnson, former vice president and general sales manager, who has retired.

"This program will open new profit fields for all of our distributors and dealers," Gibson asserted. "Concentration on this 1958 line will pay off better than ever before for our exclu-

(Concluded on Page 21, Col. 2)

60-Lb. Carrier Unit Heats and Cools

SYRACUSE, N. Y. — A new line of room air conditioners, including what is claimed to be the first portable in the industry which both heats and cools, was introduced last week by Carrier Corp.

In addition to the portable, Carrier's 1958 line will include: "slim-silhouette models designed to occupy a minimum of window space, a 1-hp. unit which operates on low electrical requirements, a 1-hp. heat pump, and a 2-hp. window air conditioner capable of cooling two or more rooms."

Also in the 1958 line is the "Console Weathermaker" which can be used in the home or office. The Console can be applied in new or existing buildings for year-round air conditioning with steam or hot water heat. No remodeling or ductwork is required, it was pointed out.

Suggested list price of the portable is \$149.95. Carrier is not establishing list prices for the other models in the firm's new line.

The multi-use portable weighs less than 60 lbs. and is only

(Concluded on Page 11, Col. 1)

Philco Names Rishel In Refrigerator-Freezer Div.

PHILADELPHIA — John A. Rishel, Jr. will join Philco Corp.'s Appliance Div. as manager of the Refrigerator & Freezer Div., it was announced by Harold W. Schaefer, vice president and general manager for appliances.

Albert J. Rosebraugh, who formerly headed this division, is on a leave of absence.

Rishel comes to Philco from Amana Refrigeration, Inc. where he served as general sales manager.

Earlier, he was assistant manager for merchandising with the Youngstown Kitchens Div. of Mullins Mfg. Co.



J. A. Rishel

BEHIND PAGE ONE . . .

Synagogue Air Conditioning

85-Ton, 5-Zone System Features
Economy and Flexibility..... 8

Australian Shopping Center

Self-Service Finds Favor In Supermarkets..... 9

News In the Heating Field.....

13

Cooling Army School

Year-Round Operation, High Temperatures,
Humidity Make Cooling Vital..... 15

Thermal Efficiency of Insulation (2)....

16

Refrigeration Problems

Replacing the Compressor (1)..... 18

Desiccants and Driers (2).....

22

Servicing Auto Air Conditioners.....

23

ARW Meeting Told To Keep Abreast Of 'Fast-Moving' Conditioning Trends

By George M. Hanning

FORT MONROE, Va. — Keep abreast of the trends in the fast-moving air conditioning industry or lose out.

That was the central theme behind most of the talks presented at a joint meeting of manufacturers and Region III refrigeration equipment wholesalers here recently.

Charles Segal of Kramer Trenton Co. put it in so many words, in speaking on the advances made in air-cooled condensers:

"You wholesalers," he said, "are finding the industry you sell to constantly changing. The range of capacities demanded and the type of equipment you sell is changing."

(Concluded on Back Page, Col. 1)

For 9 Ice Cream Firms

'Giveaway' Charges Nearing Decision

WASHINGTON, D. C. — The cases of nine ice cream companies charged with unfair trade practices, including the "giveaway" of refrigeration equipment to their dealers, should enter the "decision stage" soon, Federal Trade Commission officials told the News recently.

Only some final bits of defense evidence remain to be submitted to the FTC. This may involve

one more hearing in mid-October.

Then Hearing Examiner John Lewis plans to close the cases and call for proposed findings. That means attorneys for both sides will submit briefs outlining why the hearing examiner should decide in their favor and what they want him to decide.

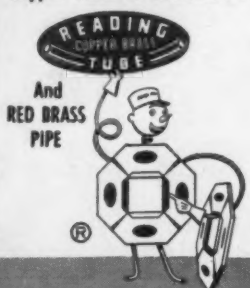
Lewis said he has no idea at the moment how long he might

HEATING SECTION
Next Week

Make Your **FIRST CHOICE**

READING COPPER TUBING

Made by
Copper Tube SPECIALISTS



SECOND to NONE
for Refrigeration &
Air Conditioning Equipment

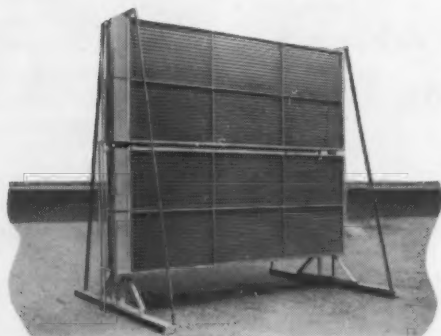
READING TUBE CORPORATION
EMPIRE STATE BUILDING NEW YORK 1, N. Y.
WORKS: READING, PA.

KRAMER UNICON

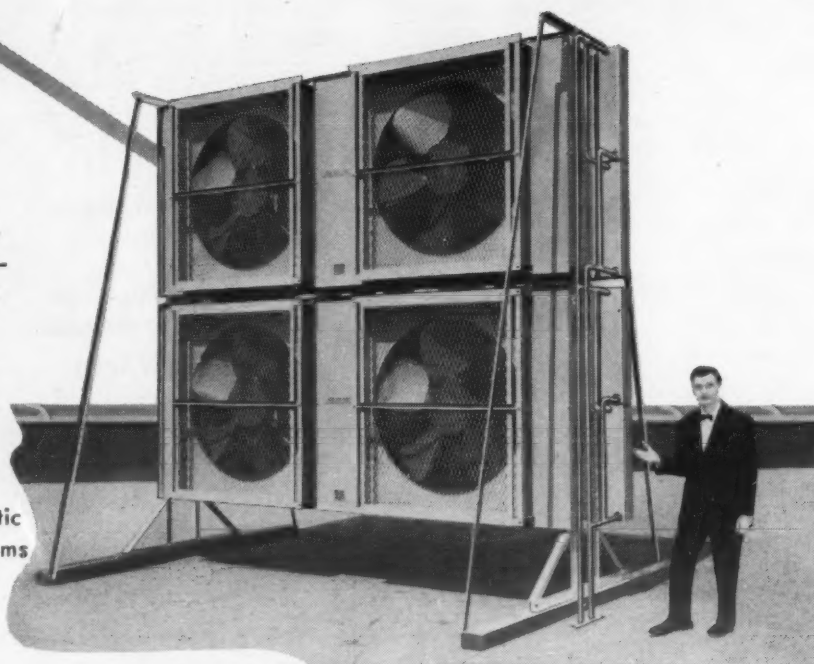
GETS BIGGER and

BIGGER

There is only one answer to large capacity condenser problems — the KRAMER UNICON. Every day more engineers plan larger tonnage installations — 50, 100 and even — 800 tons. And every day UNICONS are shipped to all parts of the world for giant-sized installations. No other air-cooled condenser can match the long, successful record of UNICON, backed by thousands of applications since 1937 — in the widest range of tonnages and climatic conditions. Your condensing problems can be best answered by use of the best — the KRAMER UNICON.



Space-saver UNICON, as illustrated, serves a 60-Ton air conditioning system, yet takes but 70 sq. ft. of roof space.



UNICON is a remote-type air-cooled condenser that requires no water. KRAMER UNICON can be used with any size compressor, REGARDLESS of horsepower. Any size refrigeration or air conditioning system can be air-cooled with UNICON, REGARDLESS of tonnage. UNICON requires less horsepower, less piping, is easier to install and costs less. KRAMER UNICON performs best — even in semi-tropical climates.

WRITE FOR BULLETIN U-210D

KRAMER TRENTON CO. • Trenton 5, N.J.

Central Servicing Talk To Highlight Cincinnati Electric Meeting Oct. 2-4

NEW YORK CITY—A highlight of the 22nd annual conference of the International Association of Electrical Leagues Oct. 2-4, will be a discussion on "Central Servicing of Major Appliances."

This subject will be covered by John H. Miller, manager, Appliance & TV Product Service, General Electric Co., during the morning session, Wednesday, Oct. 2, at the Sinton hotel, Cincinnati, it has been announced. Miller will speak after Don E. Rosenthal, president of IAEL, delivers the keynote address.

At 2:15 that afternoon, J. Rushton, supervisor of major dealer sales, Frigidaire Div., General Motors Corp., will talk on "Looking Ahead in the Major Appliance Field." At the same

session, E. A. Snyder, manager, American Gas and Electric Co., will speak on "Opportunities for Industry—Promotion of Residence Heating."

Thursday morning at 9:30, Oct. 3, a three-man panel will discuss "Revolutionary Trends in Merchandising of Electrical Appliances." Among other talks that morning will be "A Contractor's Report on Cincinnati's Wiring Modernization Program" and "Commercial Wiring—NWB's Newest Baby."

A sightseeing trip around Cincinnati is scheduled for 1:30 Thursday afternoon with cocktails in the Crystal room at 6:30 to be followed by the annual banquet in the ballroom that evening.

"Progress Report on National Programs and Plans for 1958" will include reports on "National Electrical Week," "The Housepower Program," "Live Better Electrically," and a "Discussion of Local Tie-In Activities" in the Friday morning session at 9:30, Oct. 4.

Friday afternoon at 2:15 the feature will be a panel discussion on "How Our League Operates." Annual business meeting is set for 4 p.m.

General sessions of the gathering are open to all members of the electrical industry interested in the league movement.



K. D. RALPHS



G. M. PARKER

York-Shipley Names Ralphps, Parker

YORK, Pa. — Kenneth O. Ralphps, formerly sales manager of the Timken Silent Automatic Heating & Cooling Div. of the Scaife Co., Pittsburgh, has been appointed sales manager of the residential division of York-Shipley, Inc. here, S. H. Shipley, president, announced.

It was also announced that Gordon M. Parker, formerly advertising manager of the same division of Scaife, has been appointed merchandising manager of York-Shipley.

Ralphps has been in the heating business since 1933. He was appointed New England district sales manager for Timken in 1945 and later promoted to regional manager with territories in the middle west and Canada. In 1956, he became sales manager.

In announcing Ralphps' appointment, Shipley stated that an immediate drive will be launched to extend the distribution of "York-Heat" oil and gas-fired furnaces, boilers, and burners, Shipley "Homeaire" conditioners, and "Magi-Temp" heat pumps.

T. A. Crawford, director of marketing, said Parker will be responsible for launching an expanded advertising and sales promotion program for all York-Shipley products.



"WHY THE BOSS GAVE ME A RAISE WHEN I SOLD ONLY 96 COMPRESSORS . . .

"I'll call it the XYZ Company. But it's really a well-known manufacturer of air conditioning and refrigeration equipment.

"For a year I'd been calling on XYZ. The engineers, purchasing agent, top men—all of 'em heard our compressor story and reacted favorably. My hopes got pretty high. I even hinted big things in reports to my boss.

"One day the purchasing agent phoned to say he had an order for me. Right off I was up in the

clouds. But then I found out the order was for only 96 compressors. Well, I was kind of disappointed because I'd hoped for a really big one.

"I called my boss long distance to give him the story. Do you know what he said? I couldn't believe my ears.

" 'Bill,' he said, 'we're giving you a raise, effective the first.'

"When the room stopped going around, I could hear the boss telling me lots of our customers

started with small orders—maybe a rush job, or just a trial order. But once they find out firsthand that we build dependable, long-lasting compressors and deliver 'em on time at competitive prices—then we're in solid. All the boss wanted was a chance to show them. That's why I got my raise. And it's also why XYZ is one of our best customers today."

Moral: We'd like all your business, but we'll be very happy with 96 units for a starter!

Bendix-Westinghouse

EVANSVILLE, IND.

A Division of Bendix-Westinghouse Automotive Air Brake Company, Elyria, Ohio • Export Sales: Bendix International, 205 E. 42nd St., New York 17, N.Y.

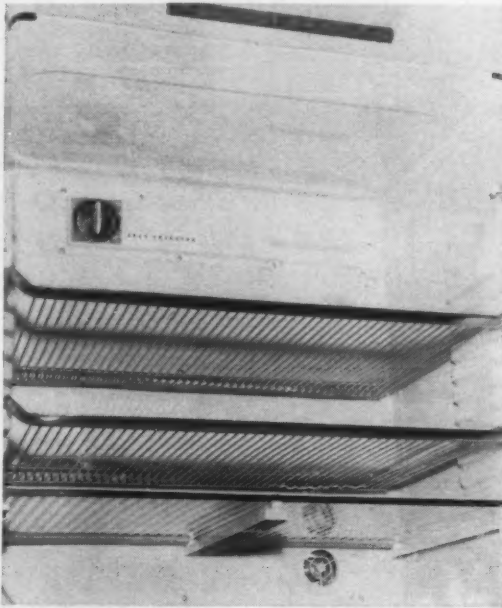
For more information about products advertised on this page use Information Center, page 14.

Westinghouse 'Cold Injector'

CORRECTION

(This picture is being repeated because it was inadvertently inverted by the production department when it made its initial appearance in the Sept. 23 issue of the NEWS.)

Top models in the 1958 Westinghouse refrigerator line have a "cold injector" in the conventional refrigerator compartment which is designed to chill the foods and beverages more quickly, and to maintain cabinet interior temperatures at a more uniform level. A 20 c.f.m. fan, located at the right bottom of the cabinet interior, draws air from the storage area over a cold plate and forces it out at the top, just above the "cold injector" panel, on which is mounted the manually adjustable temperature control.



Sees Shortage of 'Certain' Room Units; Alsdorf Predicts 1,600,000 Sales In '57

CHICAGO—"This is no time to sell the air conditioning industry short with guestimates that do not relate to facts," according to J. W. Alsdorf, president, Mitchell Mfg. Co.

While the inventory which the industry will carry over will be a major factor in the 1958 room air conditioning sales picture, Alsdorf admitted, he pointed out that the reports of "doom and gloom" rampant in the industry are not a realistic appraisal of the actual situation.

For one thing, he said, there is actually a shortage of certain models of room air conditioners. This is true especially in the 1½ and 2-hp. class, according to Alsdorf.

Latest figures indicate substantial movement of approxi-

mately 350,000 units in July and August, it was stated. This means that the total industry sales for 1957 will be approximately 1.6 million units—virtually the same as last year's total, Alsdorf said.

Since it is estimated that there were 2.3 million units available for sales in 1957 the industry carryover will be in the neighborhood of 700,000 units, according to the Mitchell executive.

This is about the same carryover as the industry had in 1954 when it sold only 951,000 units, it was noted. Now the carryover is on a base sales of 1.6 million units, he stated.

"While the carryover is too substantial to be given a quick brushoff, the industry is on a

much sounder footing than three years ago when it also carried over almost 700,000 units, in stride," said Alsdorf.

Alsdorf said that the underproduction on the 1½ and 2-hp. units was based on increased demand for these larger capacity room air conditioners not anticipated by the industry.

Adverse weather throughout much of the country was cited as the main reason for the carryover this year. Estimates of a carryover of 900,000 to 1,000,000 units which were made in recent months appear no longer true, Alsdorf said.

ARI Estimate --

(Concluded from Page 1, Col. 3) the estimates show. This is practically impossible to pinpoint, however, and the estimates on inventories made by the ARI Room Air Conditioner Section members must be considered the best available.

If 1,500,000 room units were sold at retail in the past 12 months, it must be considered a remarkable performance, even though no substantial increase was shown over the preceding 12-months' performance.

The reason why it must be

Forecast Higher Room Unit Prices In '58

ABSECON, N. J. — Manufacturer members attending the recent meeting here of the Air-Conditioning & Refrigeration Institute's Room Air Conditioner Section indicated that rising costs of materials and labor would probably push the price of room units higher in 1958.

considered a remarkable performance is that it was accomplished in the face of a general decline in consumer durable goods purchasing, a decline in residential and commercial construction—and perhaps most significant of all, unfavorable climatic conditions in the heavily populated northern metropolitan areas (some have said that there was only a "3-day room air conditioner season in New York City").

The trend to larger units was even more marked in the past 12 months. The 1-hp. unit definitely passed the ¾ hp. as the most popular model, principally because of the big demand for the 115-volt 1-hp. models. And sales of the 1½ hp. were said to be almost double that of the previous 12-month period, and sales of 2-hp. models showing a marked increase.

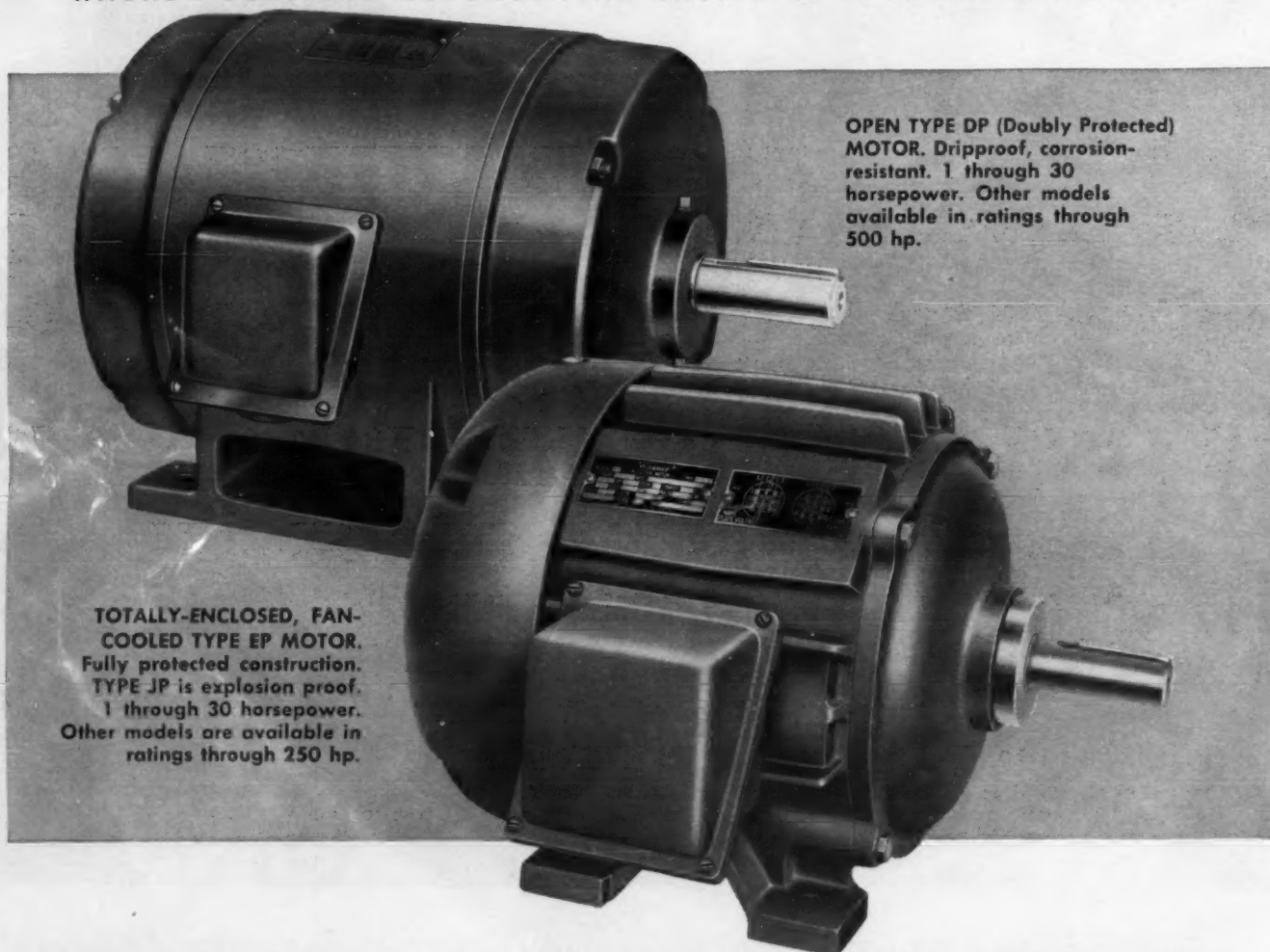


NEW
17-CASE Cap. SELF-CONTAINED BEVERAGE COOLER \$250
6 or more \$235—10 or more \$225

Stainless steel doors and track. Top, front and 2 sides finished in "Multi-kolor". All radius and ball corners. Tecumseh unit, concealed coils. No interior obstructions of unit or blower. Size—54" l. x 26" w. x 39" h.

4-BROTHERS
REFRIGERATION MFG. CO., INC.
1427 S. 8th St. Phila. 47, Pa.

WAGNER ELECTRIC MOTORS...THE CHOICE OF LEADERS IN INDUSTRY



OPEN TYPE DP (Doubly Protected) MOTOR. Dripproof, corrosion-resistant. 1 through 30 horsepower. Other models available in ratings through 500 hp.

TOTALLY-ENCLOSED, FAN-COOLED TYPE EP MOTOR. Fully protected construction. TYPE JP is explosion proof. 1 through 30 horsepower. Other models are available in ratings through 250 hp.

OPEN TYPE OR TOTALLY ENCLOSED MOTORS...
Wagner offers MORE for your motor dollar!

- **MORE POWER IN LESS SPACE...** These motors are built in NEMA frame sizes 182 through 326 U. They pack more power into less space for easier handling and stocking—require less space for installations.
- **CORROSION-RESISTANT FRAMES...** Both types are built with rugged, corrosion-resistant cast iron frames. Motor feet are cast as an integral part of the frame for maximum strength and rigidity.
- **THE TYPE OF PROTECTION YOU NEED...** Type DP motors have completely dripproof—virtually splash-proof enclosures; while type EP is totally enclosed, fan-cooled for complete protection; and type JP adds explosion proof features.
- **COOLER OPERATION...** Special baffles direct a cooling flow of air through the DP motor. Types EP and JP are fan-cooled

and have ribbed frames to increase the surface area for more efficient cooling.

- **LONGER BEARING LIFE...** These motors can be re-greased when desired to prolong bearing life. Fresh grease can be added—old grease removed through openings provided in the bearing housing.
- **WAGNER DEPENDABILITY...** These two motors have the same high Wagner quality, will give the same long life performance, that have made Wagner Motors a known value for sixty-five years.
- Let a Wagner field engineer, expert on motor applications, show you how these motors can be applied to your needs. Call the nearest of our 32 branch offices, or write us. Bulletins MU-202 and MU-203 give complete information on these Wagner Motors. Write for your file copies today.



BRANCHES AND DISTRIBUTORS IN ALL PRINCIPAL CITIES

Wagner Electric Corporation
6441 Plymouth Ave., St. Louis 14, Mo., U.S.A.

ELECTRIC MOTORS • TRANSFORMERS • INDUSTRIAL BRAKES • AUTOMOTIVE BRAKE SYSTEMS—AIR AND HYDRAULIC

For more information about products advertised on this page use Information Center, page 14.

*[open letter to all who sell or install
central residential air conditioning]*

indictment

AIR CONDITIONING IS BOUGHT ... NOT SOLD*

There's little doubt about it —what this business needs is dynamic, aggressive selling. This is brought home hard by some ugly facts revealed in the 1956 Dupont Study on Central Residential Air Conditioning.

... that 94% of those who purchased a central residential system had never been called upon by an air conditioning salesman!

... that 64% of those who don't have air conditioning have no idea of either cost of installation or cost of operation!

... that one out of three non-owners actually believes that air conditioning is unhealthy or has other disadvantages!

What an opportunity! Here is an industry *loaded* with potential. Yet, to date, we've saturated a very minor corner of it.

Can we be *satisfied* with the way things are going? Has it moved as fast as *you* want it to?

This business by its very nature is local ... as local as weather. Sales appeals and methods must be tailored to the area in which the individual installer or dealer operates.

This puts the heavy (although highly profitable) responsibility squarely upon his back.

But we can't leave him out there alone.

Manufacturers have got to give guidance and leadership before the individual contractor can command a really profitable share of his local market.

The big, big job facing the whole industry is the making of a concerted sales effort. Every man, every firm involved in air conditioning homes must join in the greatest sales crusade

this industry has ever seen. We must change tomorrow's prospects into *sales today*.

Some men and firms have done a masterful job of selling, installing and servicing air conditioning. They have succeeded in making central residential air conditioning as much a part of the home as commonplace plumbing fixtures or heating systems.

Our hats are off to these men. For they have been the pioneers. And they will be the leaders.

But the pioneer days are over. Now we must drive the saturation of central residential air conditioning to the point where any home without it is old-fashioned and out-of-date ... where those who do not have it are those who *cannot afford* the better things of life.

It can be done. In such a little time. And we must start now ... today. But we need a plan. Westinghouse has a plan. Interested?

J-80548

*Report of 1956 Dupont Survey, Central Residential Air Conditioning

YOU CAN BE SURE...IF IT'S **Westinghouse** 

WESTINGHOUSE ELECTRIC CORPORATION

Air Conditioning Division

Staunton, Virginia

AMCA Standard Test Code --

(Concluded from Page 1)

approved by AMCA during an actual test. Following approval, all test laboratories are subject to periodic inspection to see that standards are being maintained.

Performance ratings of products qualified under the program must be the result of tests in approved laboratories and/or permitted calculations set forth in the AMCA Standard Test Code. Manufacturers' published ratings are subject to spot check by AMCA.

Manufacturers To Sign License Agreement

All manufacturers taking part in the program will sign a license agreement with AMCA to maintain manufacturing control so that each unit of the same size and type will have identical performance ratings.

The right to identify their products with the AMCA program will be withdrawn from any manufacturer for any violation of the license agreement.

Information To Be Provided

For each product to be qualified for certified ratings, the manufacturer must provide the following information:

1. Description of product.
2. List of sizes offered to the public.
3. Sizes and types actually tested.
4. Supporting test data for sizes and types tested.
5. Performance ratings for spot checking.

To identify products which have been tested and rated in accordance with these uniform testing requirements, the association has adopted a seal—

"AMCA Certified Rating." This seal is a symbol saying that the manufacturer has qualified his product to meet all obligations of the AMCA Test Code and Laboratory Standards within the terms of a license agreement.

Manufacturers who are non-members of the association can make application to have their ratings certified, and are subject to the same conditions as the members in obtaining the certification.

The manufacturers may have their own laboratories qualified for the testing and rating procedure, or they can use an independent laboratory that has the approval of ACMA. Two laboratories have been approved thus far—both located at institutions of higher learning, Texas A & M, and the University of Detroit. Other independent laboratories will probably be approved in the future.

For a manufacturer to qualify

a test laboratory, tests must be conducted under the observation of an AMCA witness. This observer then evaluates and reports to the association on the conformance of the tests with the AMCA Standard Test Code and the competency of laboratory test personnel. His report will include a sketch of the test setup, description of the testing equipment, description of methods used to calibrate test instruments, log sheets, and performance curves.

Production Models Must Be Used for Tests

Production models must be used for the tests, from which performance ratings are taken. When the products bearing the certified rating seal are put out to the industry, variations in the rated performance must be within specified tolerances.

Answering questions at the press conference, L. O. Monroe,

executive secretary of AMCA, and Marshall Allen, assistant secretary, said that what the association would police would be the published rating data, the performance of the rated equipment, and the manner in which the rating seal is publicized.

With reference to the latter, the AMCA officials pointed out that the certified rating seal is not a quality seal, and should not be referred to as such. Neither has it any connection with "sound" ratings. In its use in advertising, the seal should be used only on approved products.

Complaint Procedure

When a manufacturer has issued ratings under the certification program, and a complaint is lodged with the association that the ratings are questionable, the manufacturer is "put on notice" and is given three months to correct the ratings.

If a manufacturer so charged stands by his rating, the association then requests that the following course of action be pursued:

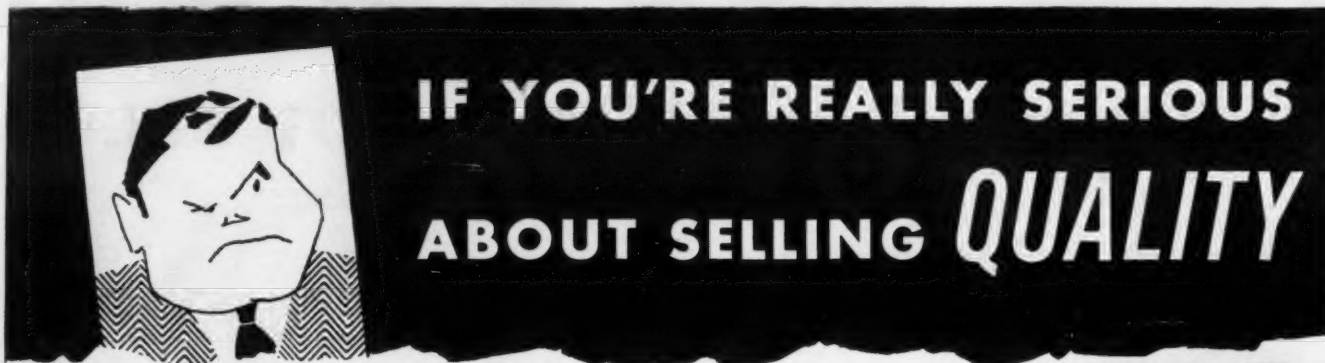
1. Testing to determine the rating of the equipment be conducted at the manufacturer's own laboratory under the supervision of personnel designated by the association or
2. The equipment to be tested by a neutral testing laboratory.

Since the manufacturer using the certified ratings will have signed a license agreement with AMCA, any violation of the terms of the agreement can result in the withdrawal of the right to use the certification seal, and could conceivably bring forth some legal action.

The job of inspecting and qualifying test laboratories in this country and Canada, and checking test and performance data submitted by each manufacturer, is now in progress. Target date for completion of this work and announcement of a list of approved test laboratories and names of participating manufacturers, is set for Jan 2, 1958.

"We feel that specifiers and users of our equipment have a right to know that the equipment they select will perform as well as the manufacturer claims," declared W. H. Rietz, president, Ilg Electric Ventilating Co. and president of the 58-member AMCA.

"In the past, considerable confusion and misunderstanding has surrounded the presentation of performance ratings for fan-operated products. The equipment user could seldom be sure that the product had been properly tested, that the ratings were accurate. The AMCA certified rating program is designed to restore the confidence of the buyer by protecting him against such untrustworthy and inaccurate ratings."



IF YOU'RE REALLY SERIOUS
ABOUT SELLING **QUALITY**

Fraser-Johnston

CAN HELP YOU

Selling *quality* heating and air conditioning equipment in today's market is the most sensible way many dealers are protecting their profit position and strengthening their business for the future. FRASER-JOHNSTON helps you sell *quality* by manufacturing *only* top quality equipment, designed to meet and exceed performance standards recently published and those slated for industry acceptance.

★ Adjustable fan and limit controls make it easier to attain high quality comfort at every temperature.

★ A wide range of sizes in the FRASER-JOHNSTON line enables you to sell the perfectly sized installation.

★ FRASER-JOHNSTON's extremely large fans provide extra air delivery with less noise and blower wear.

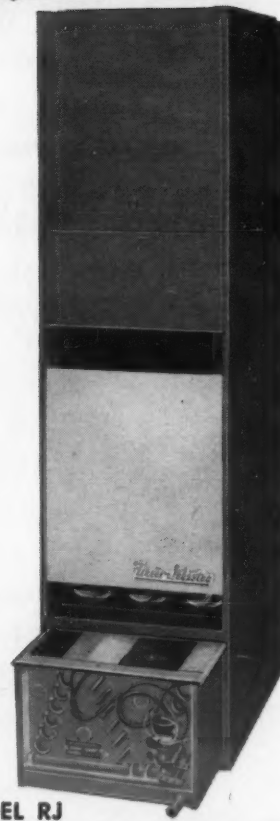
★ Most FRASER-JOHNSTON belt-driven furnaces carry 0.6 in. AGA high static approval.

★ Quality includes efficiency—and FRASER-JOHNSTON's design gives top heating economy.

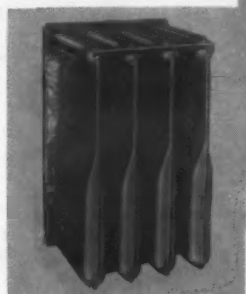
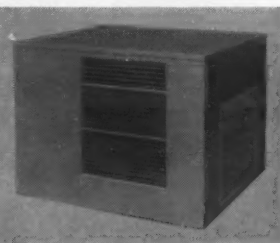
★ Large condenser fans provide high capacity quieter operations than ordinary condensers.

These are just a few of the highest-quality features you can sell when you let FRASER-JOHNSTON help. Some territories still open. Write for full information.

MODEL RJ



Model A 17
Condensing Unit



Heating Element
Model RJ, LJ, CJ, GP

THE BEST ENGINEERED AIR CONDITIONING GAS FURNACE ON THE MARKET

1900
17TH STREET

Fraser-Johnston

OVER A QUARTER OF A CENTURY OF LEADERSHIP

SAN FRANCISCO
CALIFORNIA



Safely supports hanging pipes, conduits and cables up to 500 lbs. 3/4 in. 20 gauge electro-galvanized steel. 1/4 in. holes on 1/2 in. centers. Various lengths available. Send for literature.

MINERALLAC ELECTRIC COMPANY
25 N. PEORIA ST. • CHICAGO 7, ILL.

Growing 'Custom Products' Business

Frigidaire Sales Executives Discuss Long-Range Building Industry Plans

DAYTON—More than 160 sales executives from Frigidaire's national distributing organization met here recently to discuss plans for sales of built-in appliances, air conditioners, and home heating equipment in the building industry and other large-volume markets.

Sales programs, merchandising techniques, and product applications were outlined during a two-day meeting.

C. H. Menge, Frigidaire's general sales manager, pointed out that the meeting here marked an important step forward in the company's long-range program to expand and intensify selling activity in the rapidly growing "custom products" business.

He urged visiting sales executives "to exercise the finest type professional salesmanship, technical know-how, and specialty selling tactics to fulfill the highly specialized requirements of their customers and capture the large volume business on tap in the vast remodeling and new building markets."

The Frigidaire factory sales department employed dramatic stage presentations, films, and special properties to punch home the custom product sales message. Other speakers were:

W. F. Switzer, merchandising manager; C. V. Kirby, built-in appliance sales manager; B. C. Wagner, air conditioning and ice cube maker sales manager; W. H. Smith, manager of building industry and quantity sales; R. H. Lawrence, director of credit and collection; C. S. Trigg, general supervisor of product pricing and feature

analysis; W. H. Winn, supervisor of residential air conditioning sales; R. A. Kramer, supervisor of room air conditioner sales; and F. B. Hartney, Jr., supervisor of commercial air conditioning and ice cube maker sales.

N. C. Sets Refrigeration Contractor's Exam Oct. 30

RALEIGH, N. C.—Examination to qualify for a refrigeration contractor's license will be held here Oct. 30, announces K. P. Hanson, chairman of the North Carolina State Board of Refrigeration Examiners.

Application forms may be obtained from the board's office (P.O. Box 10553, Raleigh), and must be returned by Oct. 15.

Trane Breaks Ground for Tennessee Residential Conditioner Plant

LA CROSSE, Wis.—Two contracts, one for grading and drainage and the other for the fabrication and erection of structural steel, have been awarded for the new Trane Co. plant in Clarksville, Tenn., the company announced.

The \$1½ million, 150,000-sq. ft. plant will be used for the

manufacture of residential central-type air conditioning equipment.

Grading and drainage for the 101-acre site will begin immediately. Oct. 12 is the anticipated completion date for this phase of the construction, while the plant's steel skeleton is scheduled for erection by December.

Death Notices

Glenn Dicoct, a district sales manager for Fedders-Quigan Corp., died recently in University hospital in New York City at age 48. Dicoct had covered Alabama and parts of Florida and Tennessee for three years. He was in New York City for a distributor convention.

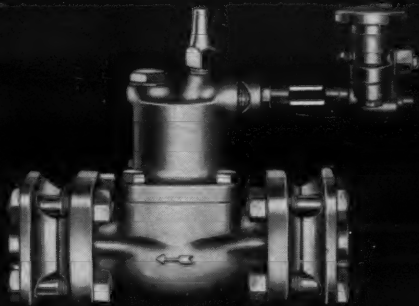
Mervin M. Shafer, 52, an executive of Ingersoll-Rand Co., New York City, for 31 years, was killed in an automobile accident near Dallas recently. His home was in Brooklyn.

Robert J. Guindon, 43, president of Western Air Engineering Co., died in Las Vegas, Nev. He leaves his wife, Alice, a son, Clayton, and a daughter, Diane.

Julius Dahut of Rockville Centre, Long Island, a retired merchant in store fixtures and commercial refrigeration, died recently after a two-month illness. He was 77.


Raymond B. Wall, Sr., head of R. B. Wall Co., Wilkes-Barre, Pa. appliance distributor, died of a heart attack Sept. 10 at his home in Kingston. He was 69.

Clarence A. Davis, plumbing and heating contractor of Birmingham, Mich., co-founder of Davis Bros. Plumbing & Heating Co., Inc., died Sept. 14 at age 71.



alco's PO valve

maintains control



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SENSITIVE CONTROL down to 15% of nominal capacity
NO LIQUID SLUGGING to wreck the compressor
CLOSE SUPERHEAT CONTROL

That's why Alco is recommended so often for chiller applications with wide ranges of load and capacity.


Why worry about compressor failure?
Install Alco and relax!

Capacities: 20 to 200 tons, F-12 and F-22

Buy Alco . . .
The System Shows the Difference

Write for Bulletin No. 189-57

The one complete line of refrigerant controls that insures product quality: Thermostatic Expansion Valves, Refrigerant Distributors, Solenoid Valves, Suction Line Regulators, Flooded Evaporator Controls, and Reversing Valves.



ALCO VALVE CO.

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7600

SEE YOUR ALCO WHOLESALE

85-Ton, 5-Zone Synagogue Air Conditioning Features Economy, Flexibility

DAYTON — Air conditioning of a modern synagogue center—famous throughout this area for its architectural beauty—is a proud feather in the cap of Jack Roll who heads Tempered Air Co., Inc. here.

The Airtemp dealer recently engineered and installed 85 tons of air conditioning in Dayton's Beth Abraham Synagogue Center.

Beth Abraham Synagogue is a center of community life. Facilities provide for a blending of

religious, cultural, and educational interests.

Facilities include—main sanctuary where Sabbath and holiday services are conducted, a smaller sanctuary for daily worship, a social hall—also serving as a theater—two fully equipped modern kitchens, a teen-age recreational room, a meeting room, and executive offices.

Any of the several activities may be conducted separately or, as frequently happens, all facilities

may be in use at the same time.

Necessary Plan

It was necessary therefore for Roll to plan and engineer an air conditioning system offering economy of operation while at the same time providing maximum operational flexibility.

Roll designed a system employing five individually controlled zones of air conditioning.

The main sanctuary, located

on the first floor level and seating over 700 persons, and the social hall on the second floor presented a special engineering challenge.

The two areas are combined into one unit during the high holidays when attendance reaches a peak. When the folding partition at the front of the social hall is opened, it becomes—in effect—"a mezzanine" to the auditorium below. Seating capacity is nearly doubled by this arrangement.

Installs 40-Ton Radial Compressor

To serve the auditorium, Tempered Air installed a 40-ton direct expansion radial compressor. Considered as a separate zone, the social hall was equipped with two 15-ton air conditioners. Auditorium and social hall cooling systems are separately controlled but they are designed for joint operation when the two sections are used as a single unit.

Another fairly large area which posed a problem—but to a lesser extent—was the board room.

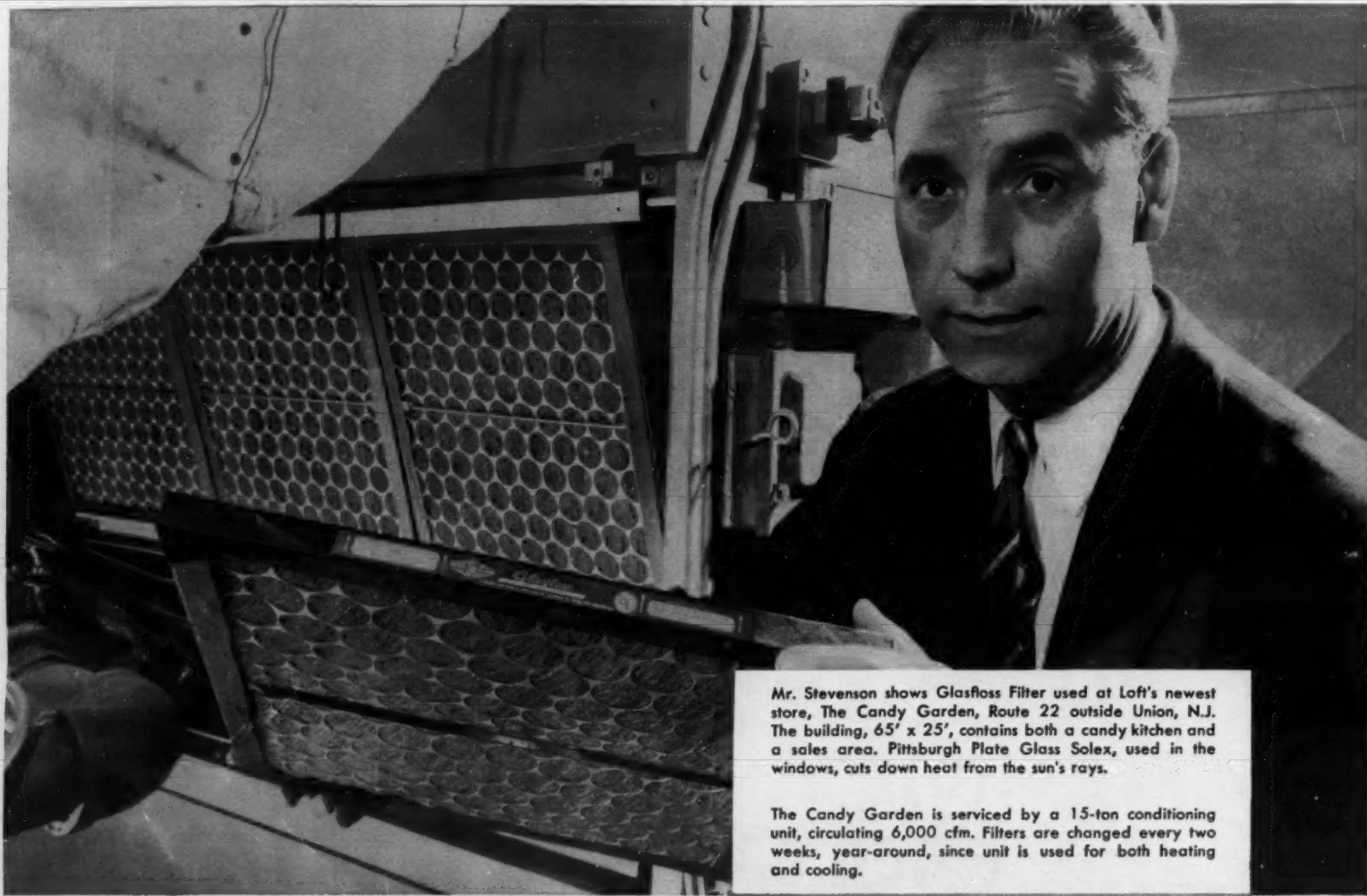
Sometimes the entire room is used—while on other occasions it is separated by a divider and either one or both portions used.

2-In-1 Control System

For this room Tempered Air engineered a two-in-one control system utilizing a pair of 5-ton packaged air conditioners. Thermostatically controlled, the units can operate independently of each other or can be used in combination to meet full-capacity requirements.

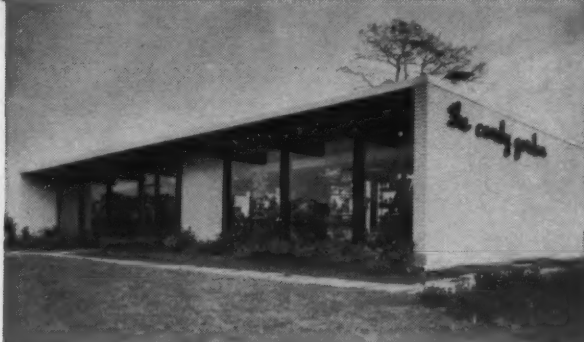
Fifth comfort zone of the religious center is the smaller "Synagogue" or chapel for those attending daily morning and evening worship. Here needs were met with the use of a 5-ton condensing unit with matching cooling coils, it was pointed out.

Roll has been a franchised Airtemp dealer for the past four years and during that period his firm has enjoyed steady growth. Bulk of the company's market is in the commercial and industrial fields while the remainder—about 40%—is residential. F. J. (Jerry) Koehnen, vice president, heads sales and promotional activities.



Mr. Stevenson shows Glasfloss Filter used at Loft's newest store, The Candy Garden, Route 22 outside Union, N.J. The building, 65' x 25', contains both a candy kitchen and a sales area. Pittsburgh Plate Glass Solex, used in the windows, cuts down heat from the sun's rays.

The Candy Garden is serviced by a 15-ton conditioning unit, circulating 6,000 cfm. Filters are changed every two weeks, year-around, since unit is used for both heating and cooling.



**"Glasfloss Air Filters cost us less to use
... provide more efficient service"**

reports Thomas Stevenson

Loft Candy Corporation's Director of Maintenance

Air conditioning and cleanliness are paramount in the business of selling candy to the public. A constant temperature of 70 degrees year-around is needed to preserve the shape, taste and appearance of freshly made chocolates; candy shop interiors must always be spotless to attract and keep customers.

In Loft Candy Corporation's 225 stores, air conditioning maintenance and air filtering have been materially improved by using Glasfloss Air Filters. Short, brittle glass fibers no longer clog air conditioner condensate lines and drains. Elaborate maintenance procedures made permanent metal filters impractical for the firm's use.

"The Glasfloss Filters can be, and often are, changed by our sales girls," Mr. Stevenson explained. "They are also

lightweight, easy to insert in the conditioning units, and long-lived because they filter in depth . . . that is, the dirt particles don't just encrust the surface. They are absorbed by the body of the filter."

There you have the important reasons why Glasfloss Air Filters are importantly different from conventional fiber glass or glass wool filters. Long, silky Glasfloss fibers are kind to the hands. Glasfloss offers less air resistance, holds more dust and dirt, doesn't surface load. In daily operations, these features mean dollars and cents saved in your office, store, plant or building. For more information, write Glasfloss Dept., Fiber Glass Division, Pittsburgh Plate Glass Co., One Gateway Center, Pittsburgh 22, Pa. Ask for a copy of Bulletin DF3.

GLASFLOSS IS A PRODUCT OF THE FIBER GLASS DIVISION OF PITTSBURGH PLATE GLASS COMPANY

Sales Offices are located in the following cities: Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Houston, Los Angeles, New York, Philadelphia and St. Louis



PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS

PITTSBURGH PLATE GLASS COMPANY

13 Churches In 7 Communities To Be Air Conditioned

DETROIT — From our back pew, we hear that:

Six Houston churches installed air conditioning this summer.

Two downtown Toledo, Ohio churches added cooling equipment for summer worshippers. St. Paul's Lutheran air conditioned the main sanctuary and Trinity Episcopal chilled the chapel.

The new Cherry Road Baptist church in Memphis, Tenn., put a 15-ton packaged G-E heating and cooling system in its temporary sanctuary.

The Methodist church in Mount Dora, Fla. is being air conditioned.

Second Presbyterian church in Little Rock, Ark. has awarded a \$3,527 contract for additional air conditioning to Schmuck Sheet Metal Co.

Central Plumbing & Heating Co. of Alexandria, La. won a \$43,724 contract to install a 60-ton air conditioning system in the educational room of the First Methodist church.

The first and second floors of the First Baptist church at Franklin, La. will be air conditioned.

Supermarkets Taking Hold In Australia

Self-Service Meat Cases Find Favor As Commercial Refrigeration Booms

NILES, Mich. — The first "shopping center" has gone into operation in Australia, and the move to the supermarket idea in food retailing has taken hold in strong fashion in the past year, so commercial refrigeration is booming in the land Down Under.

So reports H. C. Tiller, managing director, Frigrite, Ltd., Port Melbourne, Victoria, Australia. The firm is in partnership with Tyler Refrigeration Corp. with rights to manufacture Tyler-designed equipment in Australia, and Tiller has been visiting the U. S., observing plant operations and installations of commercial refrigerator equipment.

(McCray Refrigerator Co. and Sherer-Gillett Co. have also recently made agreements with Australian firms, whereby those firms will manufacture and sell commercial refrigerator equipment of the McCray and Sherer-Gillett design.)

First Shopping Center Located In Brisbane

Australia's first shopping center is located in Brisbane, which doesn't compare in size with the cities of Sydney or Melbourne. However, successful operation of the Brisbane venture will encourage the establishment of similar operations in the larger areas, Tiller believes.

The supermarket idea is really booming and the Australians are taking to it as one of the better American ideas. The Australian "super" generally is not the "giant" type store which is the current trend in the U. S., but is more on the style of the "superized" mama-and-papa stores in this country.

Has Installed About 12 Self-Service Jobs

Self-service meat equipment, for the display of packaged fresh meats, is also finding considerable favor, and Tiller states that his firm has made about a dozen of these installations, with prospects for considerably more.

One reason for the growing popularity of the self-service equipment lies in the fact that very few retail establishments keep open at night (or even after 5 p.m.) in Australia, and consequently there are concen-

trated "rush" shopping periods which jam up the service meat case areas.

Special Frozen Food Problems

There has been some increased activity in frozen food merchandising, but the Australian market presents some special problems for frozen foods. These might be enumerated as follows:

1. The long growing seasons, which provide fresh fruits and vegetables much of the year.

2. Restrictions against imports of food products, so that certain foods which are not readily provided in Australia, and which might be welcomed in the frozen form, cannot be imported.

3. Improper packaging and handling of the frozen foods that have been provided, this resulting in some consumer resistance to frozen foods.

However, it is felt that some of these problems which can be solved will eventually be solved, thus improving the market for low temperature equipment.

One of the factors which has tended to hold back the modernization of any business facilities in Australia has been a restriction on the amount of profit that a business can make. This has brought about a tendency for Australian businessmen and merchants to shrug their shoulders, in effect, at any suggestion in improvement of their operations.

But there is some indication of a changing political climate that might alter the restriction on profits philosophy, and this would greatly accelerate modernization, it is predicted.

Drive Emphasizes Distributors' Service to Food Store Operator

ST. LOUIS — A promotional campaign laying emphasis on service the commercial refrigeration distributor can offer to the food store operator has been launched by Hussmann Refrigeration, Inc.

Idea of the campaign, according to Robert Stephenson, Hussmann advertising manager, is to stress to the food trade that all the cost of an installation is not in the bare equipment alone.

There are many necessary services to be performed before the equipment starts earning profits for the food merchant. Because the market owner is going to pay for them sooner or later, he should make sure they are all included when he places his order, Stephenson said.

"Contracting for this service

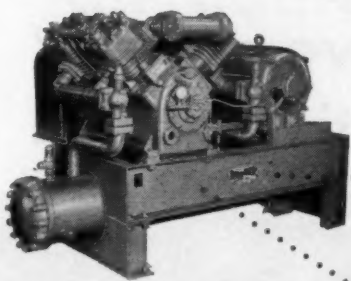
piecemeal," the new Hussmann promotion piece tells the food merchant, "can prove costly and troublesome. The Hussmann distributor in your territory is organized to handle all the problems of layout, selection of right equipment, refrigeration engineering, electric and plumbing, installation, financing, and store opening. He offers every service to help you make profits."

The promotion piece advised, "to get a true picture of the cost of refrigerated cases, you must consider three factors: bare equipment cost, planning and installation cost, and operation cost."

In the last two of these, the commercial refrigeration distributor plays the dominant role.

Good For Business

...YOURS!



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the DUNHAM-BUSH family . . .
offers you Dual Dependability**

- dependable Brunner Condensing Units
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The new Brunner and Dunham-Bush combination puts a highly qualified sales engineer "next door" to every town . . . yours included . . . with valuable technical assistance and advice.

This Brunner and Dunham-Bush sales engineer's

ability

availability

dependability

Is Good For Business . . . Yours!



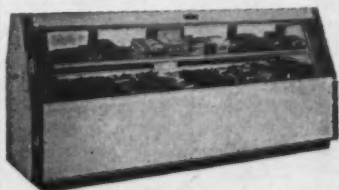
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DUNHAM-BUSH, INC.

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● BEAUTIFUL

● ECONOMICAL

● DURABLE

● PROFITABLE

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MANUFACTURING COMPANY
1400 LLOYD ST. PH. 3-4454
MONTGOMERY, ALABAMA

Inside Dope

By GEORGE F. TAUBENECK

(Concluded from Page 1, Col. 1)

Fine Prowler Caught By Sox Pitcher's Wife.—Chicago Tribune.

Public Complications

Dr. Nicholas Nyaradi, former Hungarian Minister of Finance, was reading an American newspaper when a Russian attache looked over Nyaradi's shoulder.

"Ha!" exclaimed the Russian. "We've been expecting this." And he pointed toward a headline:

"INDIANS MURDER SENATORS!"

Intersquad game at the Washington training camp (Orlando, Fla.) was called at the end of 12 innings. Score: 1 to 1.

"Humph," muttered an onlooker. "They can't even beat themselves."

Rookie noticed that Hank Aaron, Milwaukee Braves (1956 National League batting champ) turned the bat trademark underneath when he swung.

"I was taught to hold the trademark up," the recruit mentioned to Aaron.

"Yeah? Mebbe so. I go to the plate to hit, not to read."

Honest Injun, there's a pitcher whose wife is a Pitcher. Or was. Jim Brosnan, Chicago Cub fast-baller, married Anne Pitcher.

Ever willing to help any youngster with his batting, Ted Williams practice-pitched to Tommy Cronin, teen-age son of Boston's gee-em Joe Cronin.

"Pretend I'm on first, and you want to move me to second," prelied the 39-year-old Williams.

"O.K.," said Tommy, needling

Williams about his slowness afoot. "I'll go for a long one."

They Did Try

Twice large Pat Seerey struck out, to the accompaniment of bleacher jeers. Next time at bat he dribbled a dangerously slow roller toward third.

"Foul ball," cried catcher Jake Early. Seerey stopped running, and was thrown out easily. To crafty vet Jake Early, who'd euehered him, rookie Pat blurted:

"You're a busher!"

In a winter trade many years ago, the White Sox obtained Thornton Lee. Hitherto a so-so pitcher, Lee promptly won 22 games for player-manager Jimmy Dykes.

"Gosh, man," Dykes was braced, "you must be a genuine prophet. What did you do, read tea leaves?"

"Naw," Jimmy changed ci-

son clocked the interview on the traded for Lee because I couldn't hit him myself, and he was em-

barrassin' me." Broadcaster Joe Garagiola, former National League catcher, was a boyhood chum of Yogi Berra in St. Louis.

When he was breaking in at the mike the Yankees came to town. Joe arranged with his old buddy, Berra, to bunt if the third baseman lay back.

Sure enough, the third sacker played back on Berra—Broadcaster Garagiola predicted an unexpected bunt, and Yogi dropped a five-yard single.

"That made me an expert," Garagiola delights to tell, "and I was in as a sportscaster."

While tape-recording an interview with Ed Fitzgerald of the Senators, broadcaster Jim Simpson ignored a stranger who kept tapping him on the shoulder.

Concealing his annoyance Simpson clocked the interview on the

button and switched off the recorder.

"Mister," the nuisance tapped again, "I wanted to tell you that your microphone wasn't plugged in."

Gone are the days when rookies were so green they'd sit up all night holding a red lantern out the rear Pullman to prevent collisions. Or pay 10 cents for each hotel elevator ride.

When asked what his playing position was, one such replied:

"Sorta stooped over."

Contrast this with the following dialogue in the 1957 Braves training camp:

Coach: "What's the distance from home plate to second base?"

Sophisticated Rookie: "Who cares? I never run from home straight to second base."

The Great Ted

Ted Williams was 38 when he reported for spring training at Sarasota, Fla., in 1957. Confidently predicted he could play in 100 games, despite his aches and pains.

"Only a hundred?" kidded a scribe. "Last year Stan Musial appeared in all 156 games."

"Him?" Williams kidded back. "He's only 36."

"Scrapiron" Clint Courtney, pugnacious catcher, is proud of his nickname. At the same time he is positively insulting in his choice of cognomens for opposing batters.

George Kell, for instance, he refers to as "Windshield." That might not sound *prima facie* scurrilous, but Kell understands and is riled.

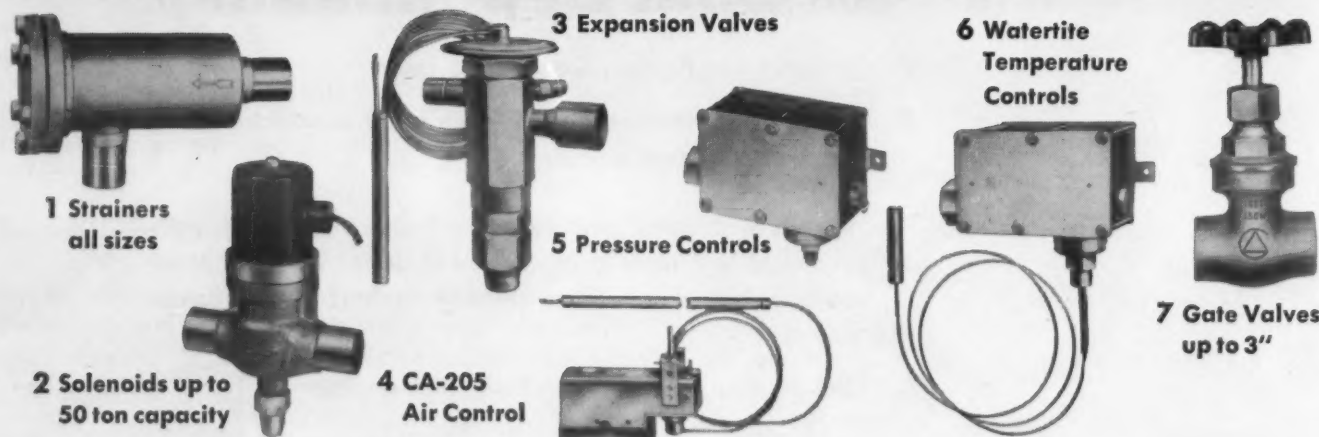
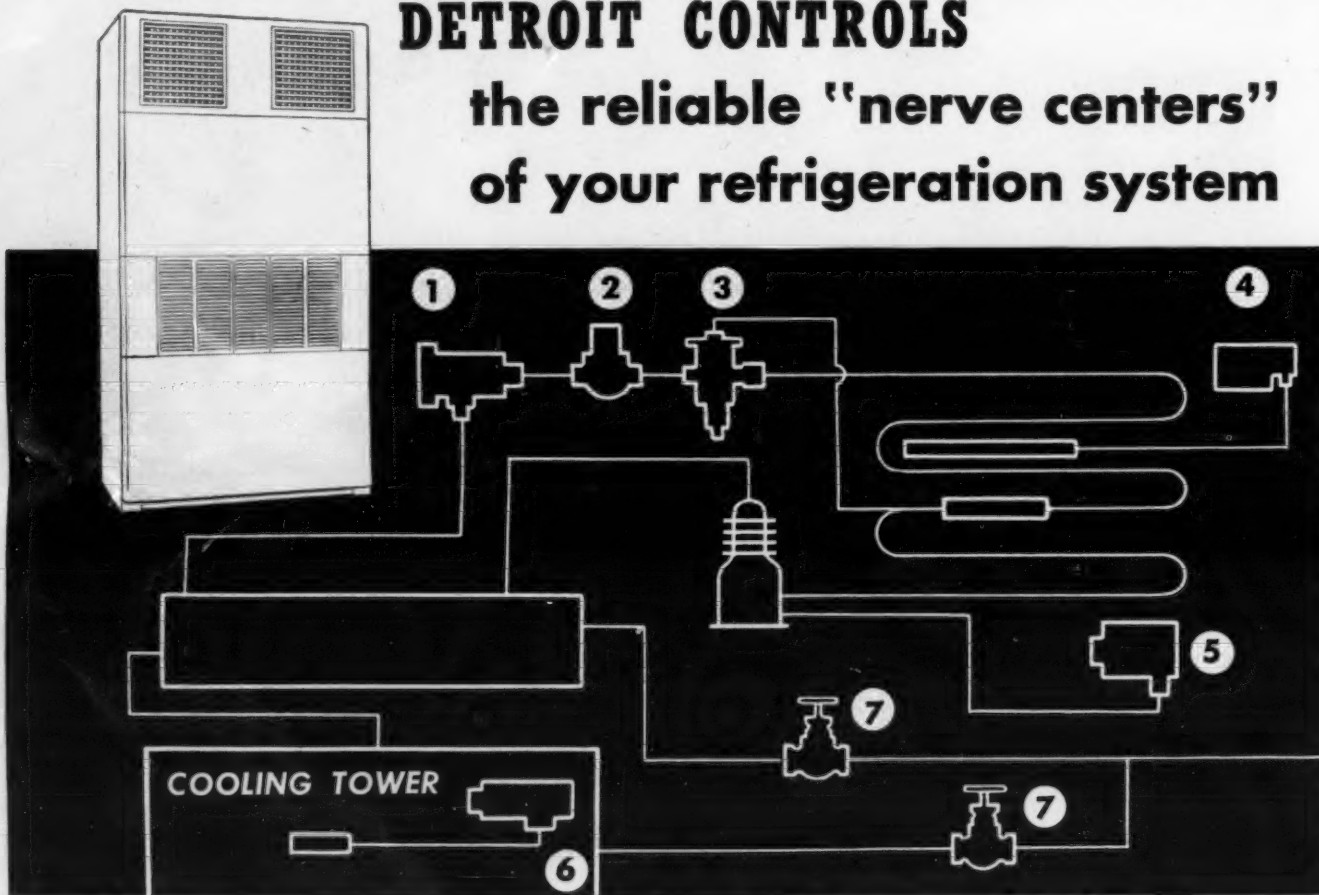
"Me," Courtney explains to the uninitiated, "I'm a dirt farmer. I work at it on the off-season. That Kell, though, he just inspects his thousand acres through the windshield of his Cadillac."

Somebody asked Courtney how he referred to Ted Williams.

"Sir, or Mr. Williams," humbled Scrapiron. "I don't move EITHER in his financial or batting circles."

DETROIT CONTROLS

the reliable "nerve centers" of your refrigeration system



The best refrigeration units made perform only as efficiently as the controls that regulate them. That is why your selection of the right type of controls is so important to the dependable operation of your complete system. These controls are virtually the "nerve centers" of the system. That is

the reason DETROIT insists upon the most rigid inspection in the manufacture of refrigeration controls. It is your insurance against faulty operation and customer dissatisfaction. For complete information contact your DETROIT wholesaler today or write for Catalog 200-E.

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For more information about products advertised on this page use Information Center, page 14.

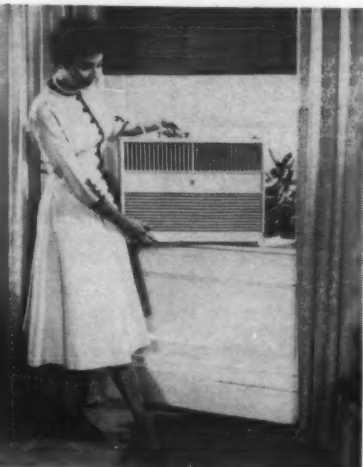


LARKIN HALF-TURRET HUMI-TEMP

Efficient operation makes a product easier to sell on one hand; builds solid customer satisfaction on the other. Precision engineering, only the best materials, skilled craftsmanship, and over 25 years' experience in commercial and industrial refrigeration add up to higher efficiency for every Larkin product. And this means lower operating costs—important to buyer and seller alike.

Manufacturers of the original Cross-Fin Coil • Humi-Temp Units • Frost-O-Trol Hot Gas Defroster • Air Cooled and Evaporative Condensers • Cooling Towers • Air Conditioning Units and Coils • Direct Expansion Water Coolers • Heat Exchangers

LARKIN COILS
519 MEMORIAL DR., S.E. • ATLANTA, GA.



NEW Carrier Corp. portable room air conditioner is easily placed in any sash window for cooling, heating, or dehumidification. It weighs less than 60 lbs. Rotating it back to front makes the unit a heat pump for mildly cool weather.



CLEAR plastic fingertip controls, reversible grilles, and new slim models which occupy less than one quarter of standard window opening are featured in the 1958 Carrier room air conditioner line.

Carrier Room Units--

(Concluded from Page 1)

10 $\frac{7}{8}$ in. thick, Carrier said. It may be operated as a conventional room air conditioner, as a heat pump to warm a room during intermediate seasons or in mild winter climates, and as a dehumidifier, according to the company. Slide-in wing panels are provided to accommodate any standard window.

The Carrier portable is designed with styled interior and exterior grilles.

"This feature permits the unit to be turned around in the window, as necessary to cool or heat the room," it was explained. "When cooling is desired, one side of the unit faces the interior. If heating is found necessary the heat pump cycle may be used by simply rotating the unit, thus reversing the grille positions."

'Can Be Carried From Room to Room'

Equipped with a built-in handle, the portable "can be carried from room to room and easily placed in either position in the window," the company said. "It is about the size of an overnight bag. It can also be used as a dehumidifier in basements or other locations where dampness is a problem."

"Operating on standard household electrical current, the portable draws only 7 $\frac{1}{2}$ amperes of electricity, which means it can in many cases be plugged into the same circuit with addition-

al current-consuming devices. "It is easily installed in any standard window. The unit's mar-proof vinyl-plastic covered aluminum cabinet has been designed to withstand scuffing and abrasions resulting from careless handling."

Used as Dehumidifier

In dehumidifying a room, the portable may be placed on the floor, a chair, or a table, it was pointed out. Its heating output offsets its cooling, tending to keep the room temperature at the original level, according to Carrier.

Russell H. Gray, Carrier vice president, stated that families could take the portable with them on vacation for simple installation in non-air conditioned motel, hotels, and resorts.

Sales to institutional users are also expected, the Carrier official said. Many hospitals, hotels, and motels may find it practical to have a number on hand which

can be quickly installed for the convenience of patients or guests, he said.

The portable joins Carrier's line of room air conditioner heat pumps which have been produced for the past several years. Included for 1958 is a new 1-hp. model which may be shifted from cooling to heating by a simple switch.

The slim silhouette design is featured in various electrical characteristics and capacities. Cabinets are 19 in. deep and 16 in. high. They will occupy only one-fourth of an ordinary double-sash window, it was stated.

These designs, Carrier reports, "provide a slimmer room conditioner without adding significantly to the vertical dimension. They are mounted on a fixed track attached to the window sill which allows them to be easily removed for cleaning or servicing during the winter

months," it was explained. A new 1-hp. model operates on 115-volt service and requires only 7 $\frac{1}{2}$ amperes. That means it can, in most cases, be connected to an ordinary household circuit with other current-consuming devices, and still provide high capacity cooling, Carrier said.

Adds 2-Hp. Model

A 2-hp. model has been added to the Carrier line this year. This version of the "Starline" series may be used to cool large open areas such as adjacent living room-dining room spaces, or may be installed in the transom of a store to provide summer cooling, the company stated.

Carrier has developed two series of window units for 1958. One is the "Crestline," featuring "an exclusive 'power cooling' concept" introduced in 1957 by the company. The other is the economy-priced "Starline."

Crestline models are available in 1 and 1 $\frac{1}{2}$ -hp. sizes. In the Starline series, 1, 1 $\frac{1}{2}$, and 2-hp. models are being produced.

"The 'power cooling' feature on Crestline models provides completely automatic control," Carrier pointed out.

Other features of all Crestline models are "a flush grille in neutral sand beige or sea-foam green which extends less than 2 in. into the room and clear plastic paddlewheel-type controls almost invisible from a few feet away."

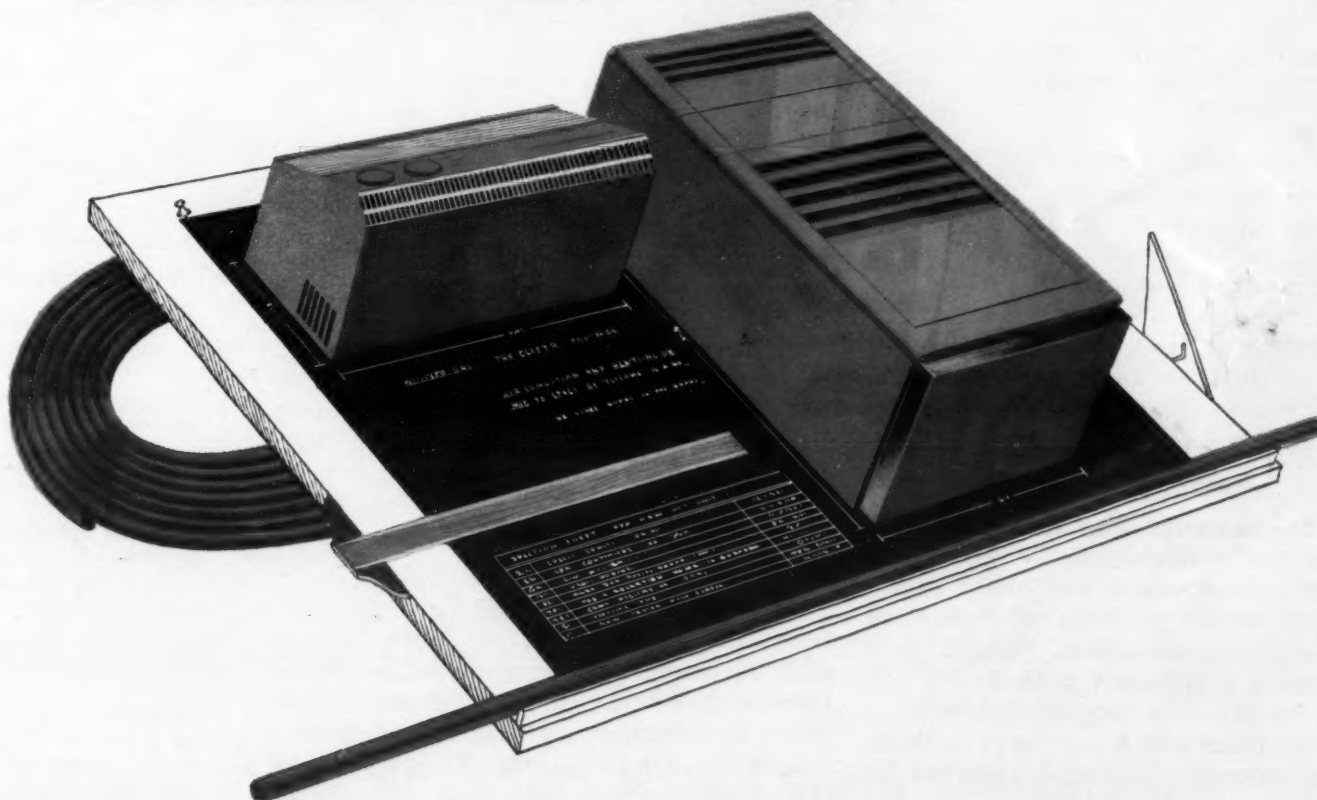
The Console Weathermaker is 12 $\frac{1}{16}$ in. thick. It can be installed through the wall, or suspended from the window.

In converting steam or hot water heating to year-round air conditioning, the Console is designed to include a heating coil which replaces the radiator.

The Console is available in walnut, cherry, and limed oak decorative wood cabinets.

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REFRIGERATION, AIR CONDITIONING and HEATING UNIT NEEDS . . .



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**Jimmy
Hatlo**



Touchy Business of Re-Educating Employers

This "permissive approach" is based on the theory that humans work most effectively when given some voice in setting both their own personal and corporate goals. Also they want to be assured they can participate in those decisions they must carry out themselves. Executives are being instructed in this new art by psychologists on three progressively complex levels—in these avidly-attended "personality schools for bosses."

Prime precept of the free speech encouragement techniques is simply this: "learn to shut up and listen." If you want your staff to express ideas freely, you must do more listening than talking, it is propounded. After asking a question or stating a problem, a boss should remain silent for at least 60 seconds, recommends Harold B. Schmdhauser of the American Management Association.

Another convert conceded that for years he had rejected any idea which he or his intimate advisers hadn't originated. When he tried a non-directive approach, he found his top men came to meetings armed with plans, facts, and figures so useful that committee time has been cut 60% and decision output more than doubled. "It's exciting," he exulted.

For the boss who wants to be a better executive, the second level of management training offers a technique known as "role-playing." The executive imagines himself to be a subordinate with whom he is in conflict. Boss and subordinate switch roles, and discuss their problems from the other's point of view. This works wonders in altering traditionally stuffy and stiff attitudes.

Final phase of the course narrows the focus down to one problem. That is how to get men on their staffs to work willingly, creatively, and enthusiastically. In pairs executives practice "motivating" one another.

Lesson that you can get more results from a man only by understanding HIS NEEDS, rather than by imposing YOUR desires on him, is difficult for many executives to stomach. But they're learning it. And that augurs well for America's prosperity.

F. M. COCKRELL, *Founder*

'The Conscience of the Industry'

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VOLUME 82, No. 5, SERIAL No. 1,488, SEPTEMBER 30, 1957

"I have always felt that whatever the Divine Providence permitted to occur I was not too proud to report. The people are not served by pussyfooting, or by that sort of journalism in which nobody will ask who is the editor of a paper or the writer of an article, and nobody will care."—Charles A. Dana.



WHEN ARE INDUSTRY MEMBERS GOING TO WAKE UP?

Editor:
I am sure by now you realize I do not take the time I should to write when outstanding editorials are written, but your editorial in the Aug. 12 issue so strongly hits the heart or crux of our overwhelming problem that I just can't resist saying, "George, tremendous" and "When are the majority of the members of our industry going to wake up."

I am particularly conscious of it now since we have just announced a completely new line of residential heating and air conditioning equipment and come out with an entirely new product instead of just continually revising furnaces as such in the past.

Yes, I am particularly conscious of it because I know that not too many of our wholesalers are going to be able to do the merchandising job that is going to be required on products of this type. When we aren't even in production yet, we have had conversations and meetings with merchandisers that have never been in our industry, that is, the heating end of it, that want

in, which to me is proving that if we have the right personnel to really do a job of merchandising comfort and beauty combined, it will do the necessary.

We are carefully selecting these wholesale distributors and in our instance, which covers one of the points you bring up, they are not installing contractors as so many have seen fit to sell as wholesalers in the past, because I don't feel we can grow that way over the long haul. We know that with supervision and the type wholesalers we will get on products of this type, we will be able to line up outstanding dealer-contractors to work with these wholesalers, just as has been done so long in the white goods or appliance field.

Sorry, George, I really rambled on here when all I meant to do was to let you know what a tremendous amount of good I feel you can do by continuing this type of editorials, if the manufacturers first will only listen to you and then set sound policies, as certainly the wholesalers and dealers have listened to you for years. Best personal regards.

C. W. MILLSOM,
Vice Pres.-Sales

PICTURE PROVIDES SIMPLE EXPLANATION

**Mid-West Association
Refrigeration Service Engineers
Society
Kansas City, Mo.**

Editor:

Under the title of "Winter Air Conditioning Fundamentals" on page 30 of the July 8 issue, we were attracted by the illustration in the center column concerning the products of combustion.

The writer has been asked many times how much air is re-

quired to burn a gallon of oil or a cubic foot of gas. We at once thought what a simple explanation this would be to the service engineer, and many of them are educating themselves to service heating equipment.

We ask your permission to reprint and distribute this article to the members of our association.

CECIL R. VISGER,
Secretary

Consumer Booklet Intended To Push Sales of Liquid Heating-Cooling Units

NEW YORK CITY—With the support and cooperation of all segments of the hot water heating industry, the Better Heating-Cooling Council has published a colorful 16-page consumer booklet—the first industry-wide promotion “text”—to help increase sales of liquid heating-cooling systems at the local level.

The booklet was planned and prepared by the council in conjunction with a team of industry promotion experts. It is available at cost to contractors and wholesalers.

The booklet is titled “Heart of the House” and takes an institutional approach.

A short history of heating, the importance of heating, and the over-all benefits of all types of quality hot water heating systems are described.

Various methods by which comfort cooling equipment can be installed with hot water heating systems are illustrated.

The booklet’s back cover provides a “Quick Home Heating

Checklist” for homeowners, as well as an imprint space for contractors and wholesalers who decide to use the booklet as a general promotion piece.

Discounts will be offered in quantity purchases. Unit cost is not yet established but is estimated at 10 cents or less.

A free inspection copy is available from Better Heating-Cooling Council, 250 Park Ave., New York City 17.

Truck Displays Gas and Oil Fired Furnace Equipment



GAS AND OIL-FIRED winter air conditioners are mounted on this “Thermo” truck made available by Thermo-Products, Inc., North Judson, Ind. for introduction of its line of heating equipment at fairs, heating shows, etc. The truck operates in the south in winter and the mid-west during summer. Two units on the truck are changed periodically and three units can be featured.

West Coast Gas Group Considers Proposed FHA Property Requirements

LOS ANGELES—Members of the heating division of the manufacturers’ section of the Pacific Coast Gas Association met here recently to consider proposed FHA minimum property requirements affecting the industry.

Consideration was given written comments of Roland R. Taylor, chief laboratory and application engineer for Fraser & Johnston Co., San Francisco, in regard to approval or certification, heat exchangers, cut-off switch and self-generating controls, and sensible and latent capacity, in the proposed MPR.

As a group the division meeting went on record and notified FHA they favor all points made in Taylor’s comments. Each company’s representative present also agreed to individually notify FHA of their concurrence with all points in Taylor’s comments.

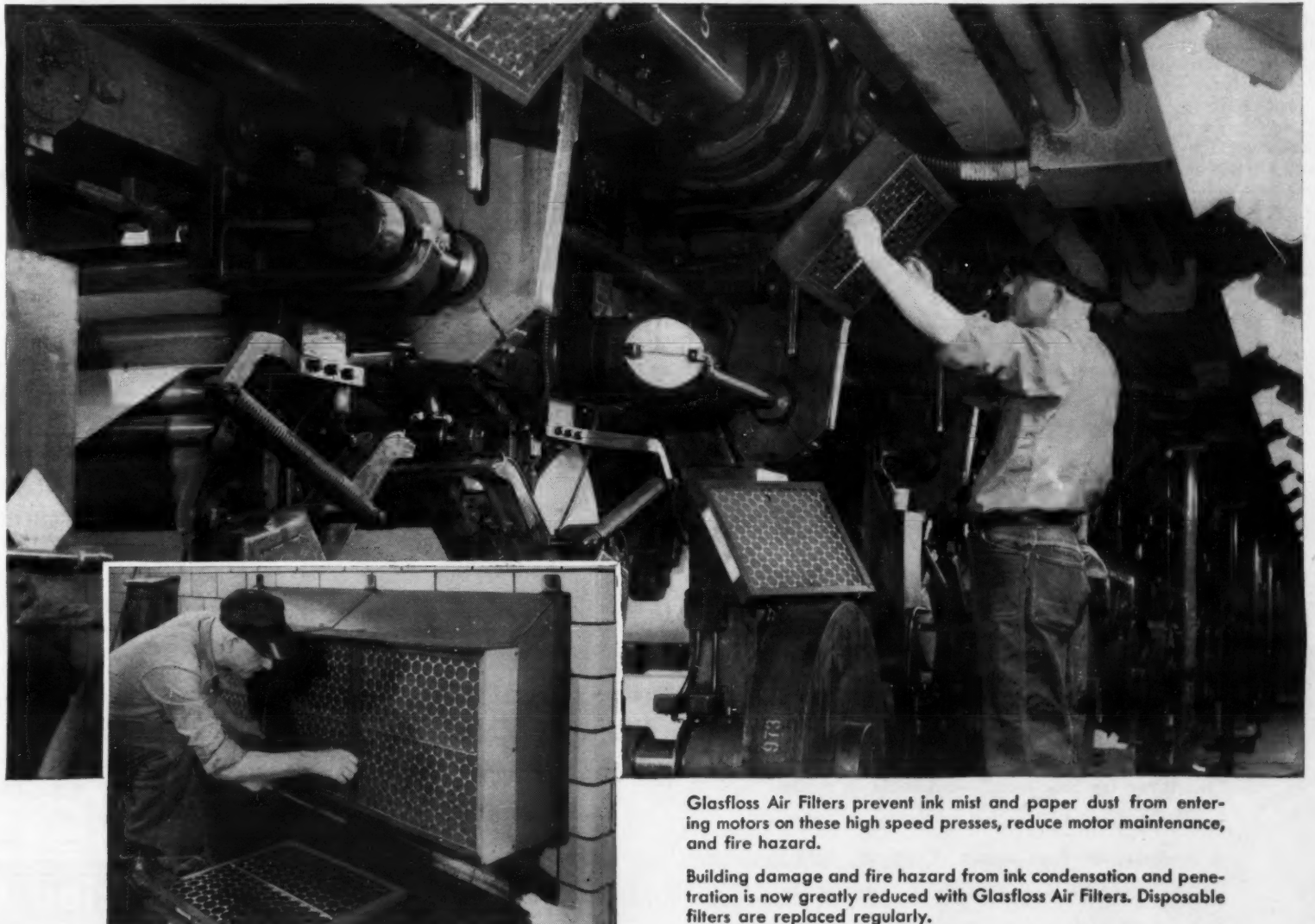
Trane Offers Plan To Up Building Sales for Heating Wholesalers

LA CROSSE, Wis.—A new program designed to assist heating equipment wholesalers increase their sales in the broadening building and remodeling markets was announced recently by The Trane Co., a major manufacturer of air conditioning and heating equipment.

The objectives, according to E. A. Cline, Trane sales manager, heating, are to provide the wholesaler with a complete, yet flexible, promotional program covering selling, educational meetings, and merchandising. A complete literature selection has been prepared as part of the program.

One piece, a sales aid handbook, contains a variety of proven ideas to help the wholesaler and his salesmen.

A short course in heating is also being provided.



Glasfloss Air Filters prevent ink mist and paper dust from entering motors on these high speed presses, reduce motor maintenance, and fire hazard.

Building damage and fire hazard from ink condensation and penetration is now greatly reduced with Glasfloss Air Filters. Disposable filters are replaced regularly.

Glasfloss* Air Filters lessen press maintenance, reduce ink mist hazard at Rochester Times Union

The Rochester Times Union, Rochester, N.Y., had two serious problems common to most newspaper plants, according to Mr. Arnold J. Cunningham, the newspaper’s building superintendent.

1. Ink mist and paper dust from 15 press-unit drive motor intakes required the cleaning of internal motor parts every three months. This caused production delays, and thorough cleaning was not always possible.

Solution: Glasfloss Fiber Glass Air Filters were installed on special frames. Now motor cleaning is done only once every six to eight months, and less time is required. Light vacuuming of filter faces daily allows maximum air intake. Motor operating temperatures are lower and a fire hazard is reduced.

2. Ink condensing inside the air ducts created an extreme fire hazard and ink-spot damage to ceilings and equipment. Paper dust caused extreme surface loading and

*Trademark

this impeded the passage of ink mist through the filter. **Solution:** After extensive testing of many filtering devices, Glasfloss Filters proved to be the most satisfactory. Through regular rotation and replacement of filters, the fire hazard has been greatly reduced. Building damage from ink condensation and penetration is very slight. Filtering costs are at a minimum.

GLASFLOSS AIR FILTERS CAN HELP YOU, TOO!

Pittsburgh Glasfloss Air Filters are made from fine, soft fiber glass which provides a greater, more efficient dirt-and-dust-collecting area. Glasfloss Filters are soft and easy to handle; this fiber glass will not splinter or pierce the skin.

Get top results with Glasfloss Air Filters. Write for the name of your nearest Glasfloss distributor. *Pittsburgh Plate Glass Company, Fiber Glass Division, One Gateway Center, Pittsburgh 22, Pennsylvania.*

GLASFLOSS FILTERS ARE A PRODUCT OF THE FIBER GLASS DIVISION OF PITTSBURGH PLATE GLASS COMPANY

Sales Offices are located in the following cities: Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Houston, Los Angeles, New York, Philadelphia, Pittsburgh and St. Louis



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What's New



Adds All-Aluminum Air Mixing Unit

—KEY NO. G-950—

NEW YORK CITY—A new all-aluminum air mixing unit for dual-duct high velocity systems has been introduced by Buensod-Stacey, Inc.

The unit, listed as type H, is designed for general purpose installation. Previously unveiled was an all-aluminum unit primarily

for under-window installation. The general purpose unit will be used generally for overhead distribution of air through standard diffusers, grilles, or other types of outlets, the company says.

Buensod is manufacturing the unit in five sizes with capacities ranging from 70 to 800 c.f.m. Lightness is a principal feature.

Announces Fluxless Aluminum Solder

—KEY NO. G-951—

WHITE PLAINS, N. Y.—A fluxless aluminum solder has been announced by All-State Welding Alloys Co., Inc. here.

Characteristics of the solder include: High strength—to 20,000 p.s.i. tensile in a mitered joint; lead free; no galvanic action between solder and base metal; and low-skill applicability with any form of heat that will raise the temperature to 720° F., at which point the alloy flows freely.

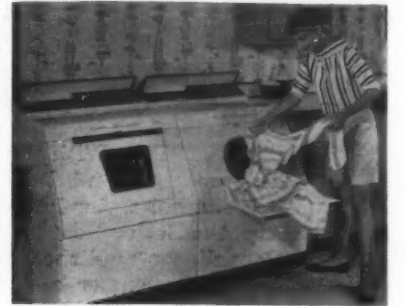
Designation is No. 55 Rubbon aluminum solder. The alloy is to be rubbed on without a flux.



'Cabinet Kitchen' Is 29-In. Wide

—KEY NO. G-954—

LOS ANGELES—General Air Conditioning Corp.'s new "Cabinet Kitchen" combines refrigerator, stove (with oven if desired), freezer, and sink in a cabinet, and is 29 in. wide. A selection of natural wood or white finishes allows it to blend with other furniture or appliances.



matic washer line for 1958. Laundromat has pushbuttons for five wash water temperatures—hot, medium, warm, cool, and cold. There are two buttons to control the rinse water temperature—warm and cold. Any wash temperature may be combined with any rinse temperature.

Washing time is controlled by the two-cycle "Fabric-Master" dial, which may be set to wash regular materials for as long as 20 minutes or to wash fine fabrics for less than seven minutes. Any portion of the wash-rinse-spin cycle may be repeated or eliminated by setting this dial.

All controls are contained in the angled back-panel, called the "Style-Lite" control center. This illuminated control center contains the colored pushbuttons and the "Laundroguide," an illuminated revolving cylinder which provides at a glance washing instructions for most fabrics and materials.

Restyled Washers Have 5 Wash Temperatures

—KEY NO. G-955—

COLUMBUS, Ohio—Pushbutton selection of five wash water temperatures and two rinse temperatures headline the completely restyled line of Westinghouse Electric Corp.'s "Laundromat" auto-

**PROVIDES UNIFORM
CONSTANT TEMPERATURE
IN ANY TRUCK BODY!**

A SURE SIGN OF
DEPENDABLE REFRIGERATION



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BLOWER
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NO SPOILAGE! NO LOSS!**

"Holdover for Stopovers"—available in models providing partial or complete holdover. Utilizes a minimum of floor space. Compact, light in weight, simple in operation. Easily installed within the truck body in a manner of minutes.

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In Canada: Dole Refrigerating Products Limited
44 Elgin Street, Brantford, Ontario

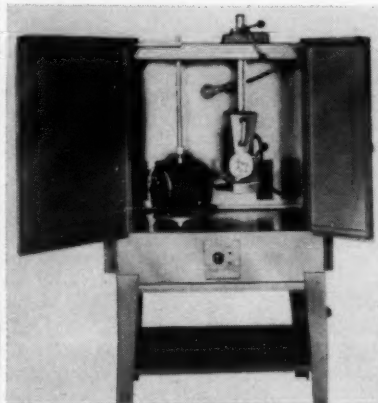
Self-Closing Doors Optional on Cases

—KEY NO. G-952—

CHICAGO—Self-closing doors are now optional on the refrigerated display section of Bastian-Blessing Co.'s 1844 refrigerated display case with 4-ft. refrigerated base; also on the 1844A, which has a dry display section at the top.

With the self-closing doors, it is claimed, there is no slamming, no rebound, and no sticking. This is insurance against doors being left open, and permits operator to use both hands when removing food from case, it was added.

Stainless steel display cases are illuminated and have an inclined mirror back.



Hermetic Compressor Opener Works Fast

—KEY NO. G-953—

NEW YORK CITY—Frankell Mfg. Co., Inc. recently announced a hermetic compressor opener that automatically opens any shape hermetic compressor up to 20 in. in diameter—regardless of position of the weld.

This scientifically engineered unit is claimed to open a faulty hermetic compressor in just two minutes of the operator's working time. It is constructed of heavy-gauge metal and features two shatterproof windows for full observation.



Insures service satisfaction for all coolers, ice-makers! Clear, taste-free water... crystal ice... every day... in all locations.

FILTRINE MFG COMPANY
216 W. PROSPECT ST. • WALDWICK, N. J.

ELECTRONIC HOME AIR PURIFIER

The Revolutionary *Germitrol*®

Ultra-violet Energy  Germicidal Lamp Unit

Kills AIRBORNE Germs and Viruses . . . for Central Heating or Cooling Units Only.

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Stainless Steel—Will return many times its cost in the PROFITS of HEALTH

Easily Installed: Cut hole in return air duct, fasten in place with one screw, plug in nearby outlet.

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Command & General Staff College

Year-Round Air Conditioning Ordered for Army Students

SYRACUSE, N. Y.—Army officers learning to be atomic age generals will receive their pedagogy in facilities equally as advanced.

A new \$5 million, completely air conditioned academic building with some 300,000 sq. ft. of classroom area is currently under construction at the Command and General Staff College site, Ft. Leavenworth, Kan. Occupancy of the two and three-story building is expected next summer.

Excessive heat and humidity, two of the most serious checks on peak performance, will be eliminated.

"Trying to teach or learn in a 100°-plus Kansas summer is neither easy nor efficient," noted Charles V. Fenn, vice president of Carrier Corp. His company has received a contract to install a system air conditioning the educational complex year around.

Floyd S. Bryant, assistant secretary of defense for properties and installations, pointed out another reason for air conditioning.

"Civilian schools and colleges operate on a very reduced basis,

if at all, during hot weather, but those in the Dept. of Defense continue the year around," he said.

"Since training costs in the military departments can be relatively high, it is just good common sense to do everything we can to assure maximum efficiency from such programs," he

added.

Chilled water for cooling the glass wall structure designed by Kivett & Myers, Kansas City architectural firm, and Angus McCallum, associate, will be supplied by two Carrier hermetic centrifugal refrigerating machines. Total capacity of the units is 1,000 tons, the largest

installation of this equipment in the state.

The big coolers are operated by a "stop-go" pushbutton. An electronic nerve center automatically regulates the machines according to the heat which must be removed.

Some 200 under-the-window Carrier units located in private offices and classrooms for instructors and students, can be individually controlled by room occupants. Depending on the season, warm or chilled water

will be circulated to coils in the conditioners.

Larger areas, such as 1,400-seat auditorium, briefing room with 350-person capacity, library, and cafeteria, will receive conditioned air from 40 fan-coil "Weathermakers." These units will also supplement the supply of conditioned air to 24 convertible classrooms. The air travels through ducts from the conditioned assemblies tucked in waste space close to the ceiling.

'Not a Frill or Luxury,' Druggists Admonished To Add Air Conditioning

NEW YORK CITY—"Air conditioning is no longer a frill or luxury, it is a modern merchandising tool," a recent editorial in *Drug Topics* told readers of the druggists' trade journal.

Admonishing druggists to install air conditioning in their stores, the editorial quotes one air conditioned druggist as saying, "at first I thought it was a luxury we couldn't afford but it paid for itself the first year."

Right next to the editorial appeared a large cartoon captioned "Air Conditioning Pay-Off." It shows a smiling druggist playing a hot tune on a sizzling cash register. Overhead a ceiling-mounted air conditioner defeats the efforts of a scowling sun. The druggist says: "The cooler it gets inside, the hotter the cash-register."

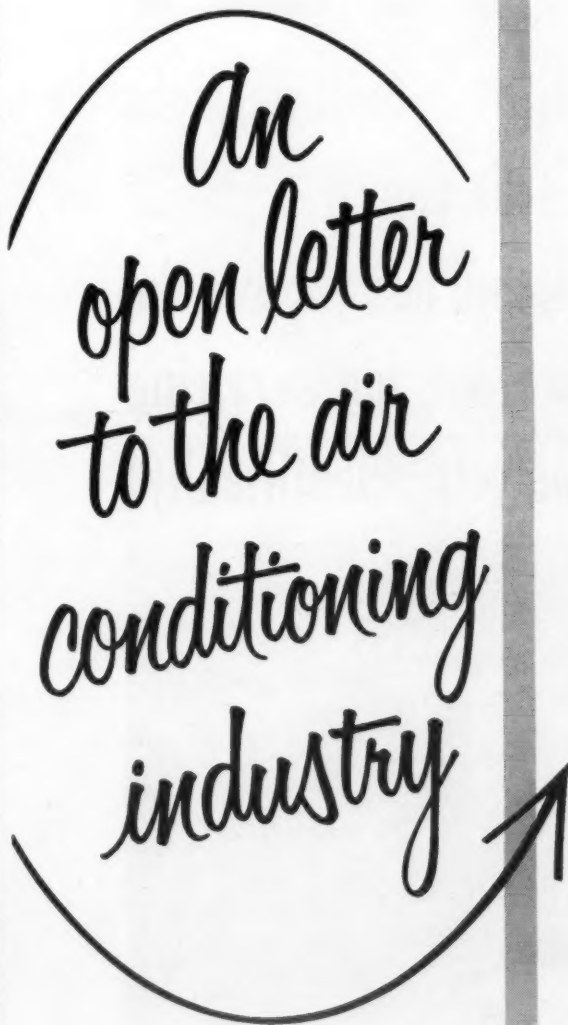
"Air conditioning makes it possible for the drugstore to maintain and even increase its sales volume when the hot and humid weather strikes."

It goes on to say, "In today's competitive merchandising arena anything which keeps the customer in the store for a longer period of time than usual and provides an attractive atmosphere for browsing and leisurely study of displays makes for greater opportunity to build individual unit sales."

"Air conditioning does just that! People like to shop in air conditioned stores. And don't lose sight of the effect air conditioning has on your store personnel. The efficiency rating really zooms under its impact."

"Sound merchandising today demands many things of a modern drugstore and among these air conditioning rates top billing. You just can't be modern without air conditioning."

The editorial appeared in the magazine's Aug. 5 issue.



LET'S FACE UP TO THE PRESENT SITUATION. Commercial and residential package sales this year are not what the industry expected. This condition may well cause panic on the part of some manufacturers, distributors and dealers who are now loaded with heavy inventories.

UNITED STATES AIR CONDITIONING CORPORATION HAS AN ESTABLISHED POLICY:

NOT to overstock distributors/dealers. usAIRco uses no "free trips," free premiums or other gimmicks to force sales on distributors or dealers. These extravagant promotions serve only to reduce profits rather than to increase product value.

NOT to impair distributor/dealer inventory value by "dumping" goods or resorting to other unethical sales devices.

NOT to cut prices indiscriminately to move factory inventory.

TO continue to assist distributors/dealers toward steady increases in profitable sales.

TO continue to protect the value of distributor/dealer inventories by respecting the integrity of the franchise.

UNITED STATES AIR CONDITIONING CORPORATION invites similar statements of position and policy from other responsible manufacturers. Such statements will help to remove the fear of inventory losses and restore confidence in the practices of our industry.



UNITED STATES AIR CONDITIONING CORPORATION

7900 Tabor Road, Philadelphia 11, Pennsylvania

Thermal Efficiency of Insulation-2

How To Meet Moisture, Condensation Problems

By C. Q. Livingston, Industrial Insulation Dept.,
Building Materials Div., Armstrong Cork Co.

As most of you recognize, there is a wide variation in the material cost of different insulating products for the same service. For a 2-in. iron pipe, for example, this may vary well from approximately 16 cents per lineal foot for wool felt to 50 cents for some of the new foamed plastics.

The need for minimizing the thickness of the newer high cost materials is obvious compared with the less costly ones where an extra 1/2-in. thickness is insignificant cost wise.

I am sure this factor also helps to account for the variations in recommendations. But

it's important to recognize that the more expensive materials can conceivably be installed much more cheaply due to lower labor costs. They will often-times render far better service than other products applied two and three times as thick. I refer here to moisture pickup discussed earlier and physical deterioration upon aging.

When the over-all problem is considered, it might be said that there are five basic factors which influence the thickness of insulation required to prevent condensation.

These are (1) the "k" value which was already discussed in

detail, (2) the dry bulb and relative humidity of the ambient air, (3) the pipe, duct, or equipment temperature, (4) the shape of the object to which the insulation is applied, and (5) whether or not the insulation is exposed to air currents.

INSULATION THICKNESS SELECTOR

All except the ventilation factor can be correlated in the form of a nomograph which is shown in Fig. 1. From this, assuming still air and an insulating material possessing a "k" value in the range of 0.25, it is possible to estimate the insulation thickness for a wide range of equipment temperature, size, and ambient air conditions. Here is the manner in which these various

Insulation becomes more in demand every day in both refrigeration and air conditioning. This article, being published in two parts, offers an excellent explanation of what thermal efficiency really is and how to measure this "k" factor, as it is known in the industry.

Moisture and condensation are often baffling. This writer lets us in on the problems and the best way to meet them, as he presented the subject in San Francisco at the Refrigeration Service Engineers' Society regional educational forum.

factors were interrelated.

Example: If we want to know the thickness of insulation needed to prevent condensation on a 7/8-in. o.d. pipe operating at 0° F. and located in a room at 80° d.b. and 50% r.h., we draw a straight line through the 50% r.h. shown on the left bar and the 80° on the center (the difference between 80° and 0°). We continue this line to where it intersects the vertical reference line x-y.

At this point, we proceed horizontally to the vertical line representing the 7/8-in. pipe. The

thickness can then be read on the right margin by following the curved line to this point.

DESIGN CONDITIONS

In the average installation, it's possible to measure the equipment temperature and the shape of the equipment. The "k" value of the insulation is, of course, known.

If the equipment is in a conditioned space, it's safe to assume that the space will be in the range of 80° d.b. and 50% r.h. If outdoors, it's customary to use the summer design conditions as published for any particular part of the country in various handbooks. These are the same conditions that cooling equipment manufacturers use to design cooling loads.

More specifically, these published design conditions are usually the maximum hourly outdoor dry-bulb and wet-bulb temperatures which have been equalled or exceeded 2 1/2% of the total hours during June, July, August, and September.

It should be noted that these figures then fall somewhere between the maximum conditions ever recorded and the average maximum.

In New Orleans, for example, which is ordinarily considered the test box of the nation from the standpoint of serious sweating problems, these are 95° d.b. and 80° w.b., corresponding to a relative humidity of 65%.

They have been selected as the basis for design since it is seldom good engineering practice to base equipment on the extreme maximum.

In considering the cooling equipment, designing it on this basis will mean that for approximately 2 1/2% of the time conditions indoors will not be entirely comfortable. From an insulation point of view it means that sweating will likely occur for short periods of time. But it will not likely be serious enough to cause any costly damage.

However, the big problem is not in conditioned spaces or outdoors where reliable weather bureau data is available. It is where we most often encounter piping and ducts in structures; in crawl spaces underneath buildings, enclosed in pipe chases, above false ceilings and the like. All are complicated by unusually high humidities in new construction as a result of fresh plaster and concrete.

These are the conditions that are of most concern and surprisingly enough there is simply no data available to date.

In the laboratory, we are attempting to simulate these conditions. We have built a pipe test rack and located it in a closely controlled constant temperature room.

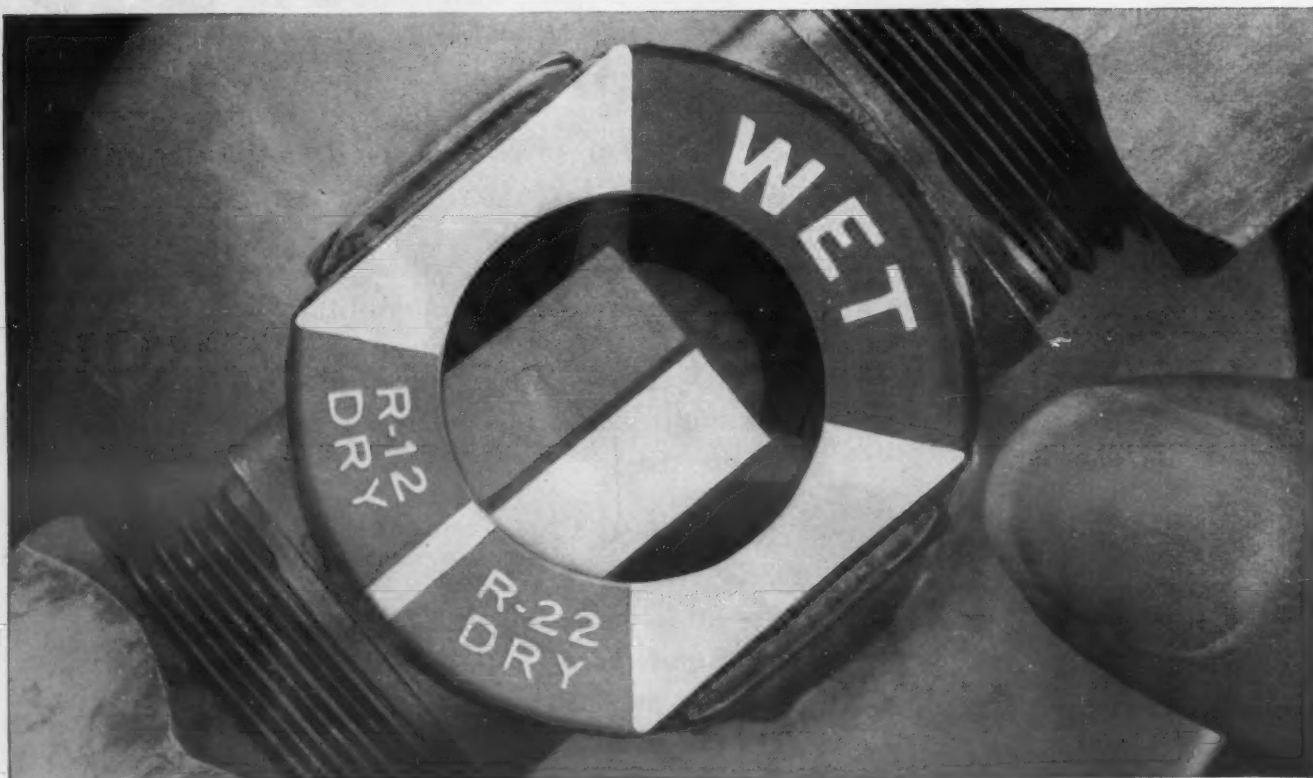
The test areas are in the form of sizeable loops of piping which are insulated with various types of insulation and coatings.

We perform a calorimeter type test on these loops just

(Concluded on next page)

IT'S HERE!

The world's first moisture indicator with a built-in sight glass. The new **ANSUL SUPER DRY-EYE** tells you at a glance if the refrigerant is dry or dangerously wet, and lets you see the condition of the refrigerant. Here are the four big servicing questions the super **DRY-EYE** answers for you scientifically!



Q. If I am using Freon-12 how will I know if it is dangerously wet or dry?

A. Just look through the big window at the R-12 indicating element. If it is blue the refrigerant is safe; less than 10 parts per million of moisture present. If it is pink, moisture has climbed above 30 ppm—time to change driers.

Q. If I use Freon-22 in a system how will I know if it is wet or dry?

A. If the R-22 element is green your refrigerant is in safe operating condition—less than 20 ppm of moisture. If the element shows pink, moisture has reached the 25 ppm level; time to change driers and avert a costly breakdown.

Q. Will the Super Dry-Eye tell me if there is a low refrigerant charge?

A. Yes. The fused glass window, the first proven leak-proof

sight glass in the industry, permits visual inspection of the refrigerant at all times. Bubbles indicate a low refrigerant charge or a possible restriction in the line.

Q. Is there a simple, economical way of correcting the problems which the Super Dry-Eye tells me about?

A. The T-fitting which houses the Super Dry-Eye can also serve as a connection for an Ansul T-Flo drier without an additional break in the line. The drier screws in like a light bulb and hand tightening gives a leak-proof seal.

The Ansul Chemical Company, Marinette, Wisconsin



Thermal Efficiency of Insulation--

(Concluded from preceding page) after they are installed to check their efficiency. These can be exposed to either accelerated service conditions or actual outdoor conditions, for varying periods in our tank farm.

Following this treatment the loops can again be returned to the constant temperature room where the efficiency of the insulation is evaluated.

This will allow us to more accurately establish the behavior of both the basic insulation and the vapor barrier coating.

Another piece of equipment has been designed to simulate insulated chilled water piping in horizontal closed spaces. Needless to say, its performance characteristics and tendency to sweat are quite different than exposed piping.

The same kind of testing is performed on ductwork. In each case it is a matter of accurately measuring surface temperatures and detecting sweat patterns under controlled conditions.

We realize that even this precise work in the laboratory is of little value if it cannot be correlated with actual field conditions. Investigations are now under way along these lines as well. As far as we can determine, it is the first time such studies have been made.

Several buildings at different locations over the United States have been equipped with temperature measuring devices and automatic recording equipment.

Both new and old structures have been selected and the locations for temperature measurement include all those mentioned earlier; such as outdoors, occupied areas indoors, unconditioned areas above false ceilings, in plenum chambers and pipe chases, and, of course, the operating equipment temperature.

When this information is available we would expect that it will take the major guess work out of designing insulation thicknesses to prevent condensation.

On the basis of such data we would hope that thickness recommendations can be simplified and standardized to the point where it will be possible for you to easily and quickly lift the necessary information from a simple table.

We would hope also to be able to reduce insulation costs to the absolute minimum without danger of consequential damage due to sweating.

NEW PRODUCTS

In carrying out this program you can be sure that many new materials are being produced. Some of these are:

1. A new foamed plastic insulation produced in tubular as well as sheet form. Some of its unique characteristics are flexibility, inherent moisture vapor resistance, self extinguishing, and extreme ease of application.

2. A new insulation coating compatible with asphaltic surfaces and available in nine different shades. This product possesses good weather resistance, provides color identification, and protection of the insulation.

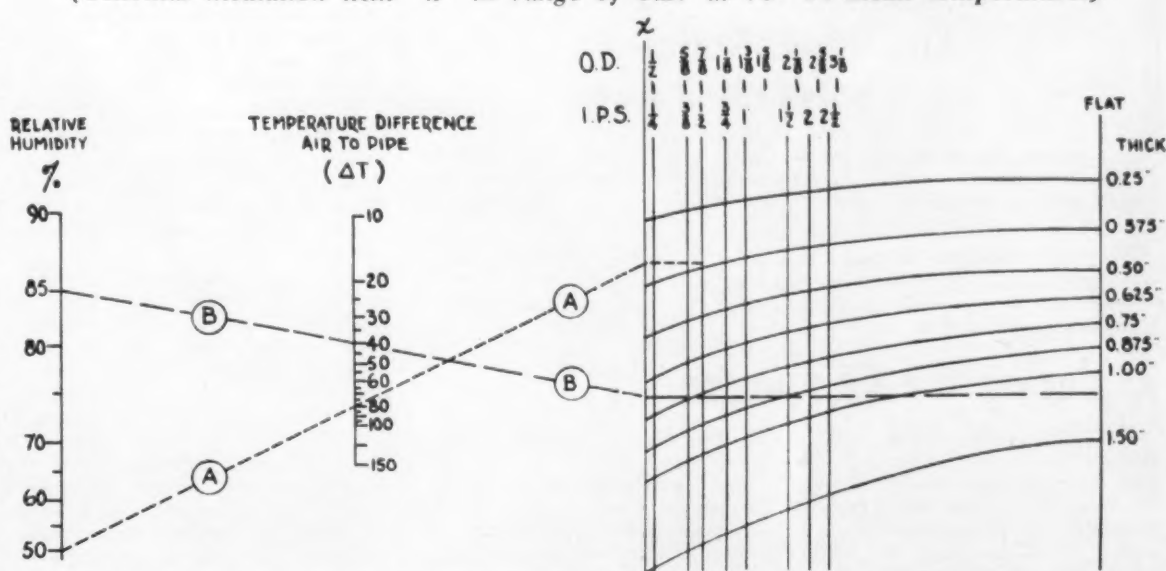
It is fire resistant and can be used as a lagging adhesive in applying canvas to the insulation.

3. A new moldable cork and rubber insulation for use on cold line fittings. It obviates the need for stocking a large variety of factory molded jackets, and delays caused by waiting for special fitting covers can be eliminated.

4. A new form of cork covering made from precision-cut segments of corkboard adhered to a flexible backing of asbestos paper and aluminum foil laminate. This product provides excellent fire and vapor resistance. It can be reused and saves storage space since it is shipped in flat sheet rather than the conventional half section.

FIG. 1—Insulation Thickness Selector

(Thermal insulation with "k" in range of 0.27 at 70° F. mean temperature.)



ments of corkboard adhered to a flexible backing of asbestos paper and aluminum foil laminate. This product provides excellent fire and vapor resistance. It can be reused and saves storage space since it is shipped in flat sheet rather than the conventional half section.

SO HALSTEAD & MITCHELL ENGINEERS ASKED...

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All coils feature the exclusive Turbu-Flo fins. Streamline design creates better air wash, lowering air film resistance and improving heat transfer; yet friction is at a minimum.

Turbu-Flo fins are made of aluminum (available in copper), mechanically bonded to seamless copper tubing.

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Refrigeration Problems And Their Solution

(As Written by Paul Reed)

The late Paul Reed, one of the refrigeration industry's most respected writers and teachers, wrote a column on "Refrigeration Problems and Their Solution" which was published regularly in AIR CONDITIONING & REFRIGERATION NEWS for more than 15 years.

Readers throughout the years have hailed this written material as some of the most practical and helpful that has ever been published. Fortunately, the author had an opportunity to revise some of this material and the NEWS is currently re-publishing it.

Replacing the Compressor (1)

As a rule, the service engineer finds it easier and more satisfactory to replace a compressor with the same make and size. The bolt holes line up, the service valves fit, and it isn't necessary to change the pulley or the belt. He can make the change in a fraction of the time that it takes to drill new holes, change pulleys, and re-align the belt, which has to do if

he uses another make or size of compressor.

But sometimes an identical replacement compressor just isn't available, and he must use what he can get in time to keep the job going. Although such instances are becoming less common, independent servicemen in some territories possible to get an identical re-find it difficult, if not almost im-

placement through his wholesaler or the local distributor. The local distributor may not have the replacement in stock or he may have a policy that he will not furnish parts except through his franchised dealers.

FORCED TO USE REPLACEMENT UNLIKE ORIGINAL

Whatever the reason, it is not uncommon for the service engineer to be forced to replace the compressor with one that is neither the same size nor in fact, the same make. The mechanical part of adapting the new compressor is bad enough. He will probably have to drill new mounting holes, for there are no standard mounting dimensions for compressors, such as there are for motors (well anyway, some motors).

The service engineer may run into a lot of complications. One or more of the feet or mounting lugs on the compressor may overhang the condensing unit base or may interfere with a receiver service valve, a control bracket, a motor rail, or a fusible plug.

Almost certainly the service

valves will not fit, so he will get the new compressor with its own service valves on it; but they may be pointed the wrong way, or be too high or too low, or the tube sizes may be different, and he may have to sweat on a new piece of tubing to the suction line or to the hot-gas discharge line to the condenser.

These things will cause him a lot of work, but they are not too difficult. The probabilities are that most of his trouble and time will come from selecting the correct pulleys and belts and getting them aligned. Also he may run into trouble in getting the new pulley in between the new compressor and the condenser.

Another thing he will have to watch out for is the direction of rotation of the compressor. The new compressor may be designed to run in the opposite direction of rotation from the old one, so he may have to exchange the motor, unless the motor is a type such as the repulsion-induction motor, that can have its direction of rotation changed with an easy adjustment. Regardless, the compressor

must be run in the right direction of rotation.

If he does have to change the direction of rotation of the motor, he will have to get a new fan for the motor pulley. Very few fans that, for example, are designed for "blow-air," can be converted to "suction" fans just by running them in the opposite direction.

Usually it is better to use the same type of fan, for an air-cooled condenser that was designed for a suction fan will generally give better results with a suction fan than with a blow-air fan.

BIG PROBLEM IS MAINTAINING THE SAME DISPLACEMENT

But his big problem is in getting the right pulleys that will keep the same compressor capacity. If he runs the compressor too slowly, its capacity will be too small and the unit may run all of the time, or it may not even be able to keep temperatures. If the compressor runs too fast the motor will probably be overloaded.

Excess compressor capacity will probably be accompanied by other troubles, too. The motor and condenser may be overloaded, evaporator too cold, there may be difficulties in setting the control, etc.

So the service engineer should use a combination of motor pulley and compressor pulley that will give the correct compressor r.p.m. that will, in turn, keep the Compressor Displacement the same as before.

If we assume that the efficiencies of the new compressor and the old compressor (when it was new and in good condition) are the same, then to keep their capacities the same we must keep their displacements the same, for their capacities vary as their displacements.

Displacements are usually stated in Cubic Feet per Minute, abbreviated to c.f.m. The displacement of a compressor in cubic feet per minute is its displacement for one revolution, times its number of revolutions per minute (r.p.m.).

So the compressor displacement in c.f.m. equals: Compressor Displacement per revolution X Compressor r.p.m.

A reciprocating compressor may have one or more cylinders. The dimensions of each of these cylinders is measured in bore (its diameter) and stroke (the distance that the piston moves up or down in the cylinder) so the stroke is really the lengths of the cylinder that counts.

(To Be Continued)



Just slip Armaflex over pipe or tubing before making connections. Highly flexible, Armaflex follows contours without special cutting.

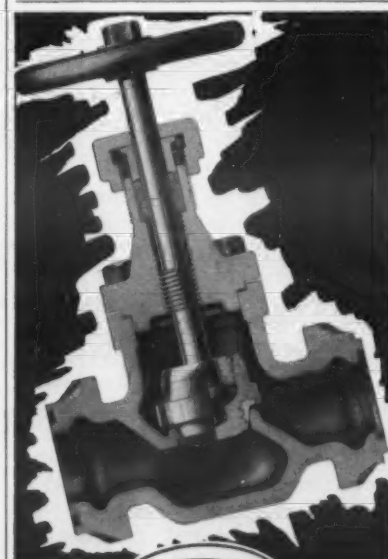
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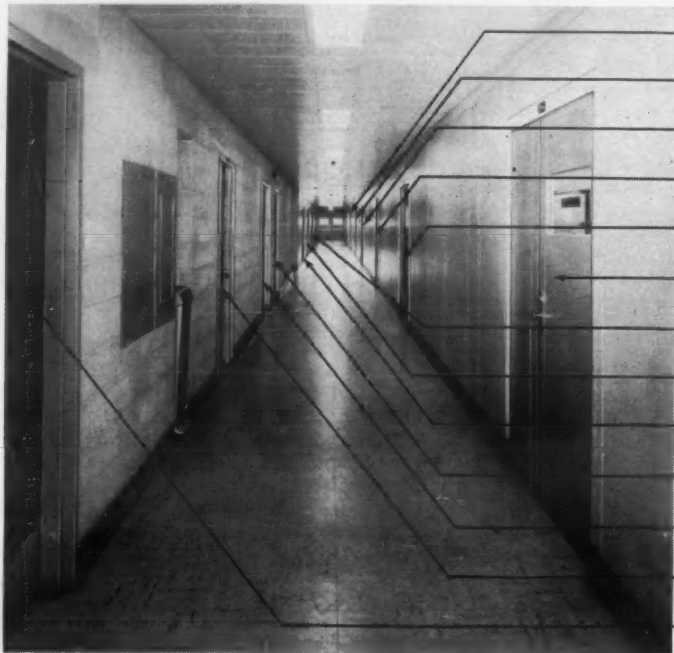


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*Total circulation to this one manufacturer exceeds 65 subscriptions—typical of the "across-the-board" penetration of the NEWS.



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W. H. BOURS III



T. D. JOHNSON, JR.

Bours Named--

(Concluded from Page 1, Col. 2) section, will succeed Bours as assistant director of sales. Until his retirement, Thompson will act as adviser to the director of sales. All appointments are effective Oct. 1.

Bours, who is 39 years old, joined Du Pont's Engineering Dept. in 1941 as a member of the Industrial Engineering Div. staff at Chambers Works, Deepwater Point, N. J. In 1950 he was transferred to the Organic

Chemicals Dept. as sales development manager of the Fine Chemicals Div. and in 1951 was named manager of the plants technical section.

A year later he was appointed sales manager of the Chemicals Div. and held this post until 1954 when he assumed his present duties as assistant director of sales of the "Freon" Products Div.

Bours was graduated from Princeton university with a B.A. degree in 1939 and B.S. degree in engineering the following year. He received his M.S. degree from Columbia university in 1941. Since November, 1956, he has been a member of the board of directors of the Air-Conditioning & Refrigeration Institute.

Johnson, also 39, joined Du Pont's Organic Chemicals Dept. as a chemist upon graduation from Princeton university in 1940. Shortly afterwards, he was transferred to the research and plant development section of the Explosives Dept.'s Burnside Laboratory at Carney's Point, N. J.

In 1945 he returned to the Organic Chemicals Dept. as a technical sales trainee, and was a technical salesman for dyes and fine chemicals in the Portland, Ore. district until 1949 when he was named assistant to the technical manager of the Fine Chemicals Div.

In 1952 Johnson became manager of the auxiliary section of the Dyes & Chemicals Div., a post he held until 1953 when he was appointed propellant sales manager for the "Freon" Products Div.

Gibson's New Line-

(Concluded from Page 1, Col. 4) sive central air conditioning distributors."

Gibson's entire staff of divisional sales managers will be charged with the responsibility of actively promoting and merchandising the expanded program in the field, he said.

"The new line—suitable for homes, offices, stores, and shops—can be installed in the basement, crawl space, utility room, dormer, through-the-wall as a free blow unit, or completely outdoors," the firm said.

"Because it's air cooled, installation of water and refrigerant lines is not required. The prefabricated ductwork cuts with a knife and is easily assembled on the job."

Conley predicted that "With this new line and national distribution, we expect our volume in this field to increase five-fold in 1958. Preliminary surveys indicate a high percentage of our distributors have a genuine desire to get into the 2, 3, and 5-hp. air conditioning business. Simplicity of application and ease of installation without custom engineering will allow the line to be merchandised through appliance dealers," he said.

In making this move, Gibson will continue with present exclusive central air conditioning distributors, giving white goods distributors first option on open territories, it was stated.

Special training schools will be conducted for the Gibson field organization around the country, and the 1958 line will be presented to distributors at a national convention.

Arkla Takes Over -- 'Giveaway' Charges Near Decision

(Concluded from Page 1, Col. 2) refrigerators. The new company, Arkla, is in the year-round gas air conditioning business, Hamilton said, and added that "it will become a major factor in the national air conditioning field."

To Expand Sales Force

Hamilton said that all organization details of Arkla had been completed, "except for the sales force, which will be greatly expanded." The sales headquarters will be located in Little Rock, Ark., home office of W. R. Stephens, chairman of the board of Arkansas Louisiana Gas Co., who also will be chairman of Arkla. Hamilton said that Stephens is expected to "take an active leadership in the air conditioning sales organization."

After a short period of shutdown necessitated by the takeover by Arkla Corp., full production will get under way at the Evansville plant, Hamilton said. This will include the 3½-ton Sun Valley year-round heating and cooling units for homes, the new 5-ton Sun Valley unit, and the 25-ton water chiller for commercial and industrial uses and for large homes.

To Improve 5-Ton Unit

The new 5-ton unit will be a greatly improved model, considerably reduced in size and weight, Hamilton said. A working inventory of 3½-ton Sun Valley units and 25-ton water chillers is sufficient to cover the shutdown period.

"Our own experience as a gas utility has demonstrated conclusively to us that the gas industry nationally has a major stake in the development of year-round gas air conditioning," Hamilton said.

Hamilton will be president of the new Arkla Corp., and Stephens will be chairman of the board. Other officers of the new corporation are: D. W. Weir, vice president in charge of operations; E. N. Henderson, vice president in charge of research and development; F. L. Holleman, secretary, and James E. Chisum, treasurer. All four of the latter hold comparable positions in the gas utility and are residents of Shreveport.

Hamilton announced the following initial appointments from among personnel of the former Servel air conditioning division:

L. E. Walbridge, manager of manufacturing; R. F. Sheets, purchasing agent; R. E. Davis, service manager; L. F. Fisher, manager of inspection and quality control; Allen Apple, personnel manager.

Manufacturing, purchasing, accounting, and research and development will remain in the Evansville plant, Hamilton said, which includes some 500,000 sq. ft. of floor space on 14 acres of land.

Approximately 250 persons have been employed in the air conditioning plant and Hamilton said it was probable that the force would be increased in the months ahead as the new company expands production.

Arkla policies on such matters as production, pricing, distribution, warehousing, service and warranty, training schools, research and development will be announced soon, Hamilton said.

(Concluded from Page 1, Col. 5) give the attorneys to submit their proposed findings. But he doubted that he would set a date this year.

The collecting of evidence and hearings describing the alleged unfair trade practices and the defenses offered by the ice cream companies has extended over several years.

But, with all the evidence in, the decision stage should be fairly brief.

The companies involved are Arden Farms, Los Angeles; Beatrice Foods, Chicago; The Borden Co., New York City; Carnation Milk Co., Los Angeles; Fairmont Foods Co., Omaha, Neb.; Foremost Ice Cream Co., Jacksonville, Fla.; H. P. Hood & Sons, Inc., Charlestown, Mass.; National Dairy Products, New York City; and Pet Milk Co., St. Louis.

L. C. Paulson, one of the FTC attorneys prosecuting the case, believes that an initial decision by the hearing examiner may come in as short a period as three months after hearings close, and a final decision by the commission in as little as six months.

Paulson said that evidence of equipment giveaways played a large part of the FTC's case, even though he called no refrigeration contractors to give testi-

mony before the hearing examiner.

He said he drew the big picture for the commission on how the ice cream companies were supplying everything for some 750,000 ice cream dealers across the country.

"The refrigeration people have little idea of how really extensive this practice is. Individually they saw only a small part of it—though it loomed large to them," he said.

Paulson indicated that he thought the commission would stop the ice cream manufacturers from furnishing equipment free—though it may not go as far as the refrigeration contractors would like. It might allow ice cream companies to rent equipment to dealers, he suggested.

But even this should open up a big new market for the refrigeration contractor—if he can hold it.

"Even if an FTC decision makes the market available to him again, that doesn't mean he is going to get the business unless he earns it," Paulson commented.

"He can't expect to get his full mark-up on the sale and then not give the customer service."

"That's how he lost the market in the first place."

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WATER COOLERS

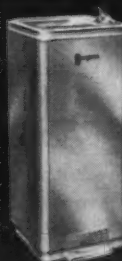
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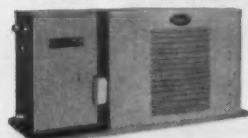
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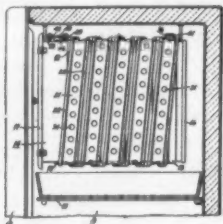
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PATENTS

Week of August 13
(Continued)

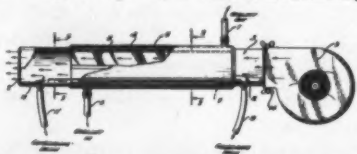
2,802,346. **REFRIGERATOR EVAPORATOR WITH DEFROSTER-HEATER.** Edward C. Simmons, Dayton, Ohio, assignor to General Motors Corp., Detroit, Mich.



1. In a refrigerator having a refrigerant evaporating element shaped to form walls of a compartment on which frost accumulates, means for melting the frost from said element, said means including a defroster-heater comprising a flexible metallic strip having convolutions thereof spirally coiled around walls of said element and including a rolled over edge portion at least partially surrounding an insulated electrical resistance wire and a flat portion extending tangentially from said rolled over portion forming a heat dissipating fin for said defroster-heater, and said fin contacting walls of said element.

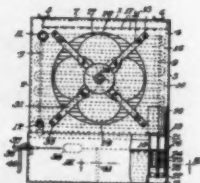
2,802,348. **CAB COOLING UNIT.** Donald Clifton White, Garden Grove, Calif.
1. A cab cooling unit comprising a

tube of uniform diameter throughout its length, a blower mounted on one end of the tube to force air throughout the length of tube, a shell surrounding



the tube and spaced therefrom, said shell and tube defining a refrigerating space therebetween and radial metal fins projecting inwardly from the tube, a coolant intake pipe and a coolant outlet pipe extending from said shell to circulate a refrigerant in said refrigerating space, a conduit within said tube and at the bottom thereof, and a drain pipe extending from the tube at one end of said conduit.

2,802,425. **WATER CIRCULATING PUMP FOR EVAPORATIVE FLUID COOLING APPARATUS.** Hyman Malkoff, Trenton, N. J., assignor to Kramer Trenton Co., Trenton, N. J.



1. A water circulating pump designed and adapted for use in evaporative fluid cooling apparatus comprising, a plenum chamber having a water inlet in the top thereof and a water outlet, means for supplying water to the inlet, a motor, means supporting the motor above the inlet, a rotary drive shaft operatively connected with the motor

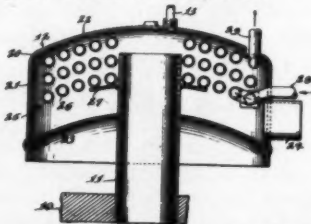
Editor's Note: Patents described here have been selected from the "Official Gazette" of the United States Patent Office. They offer only a brief summary of each invention. In some instances only the first part of the digest is presented.

Printed copies of patents, reissued patents, and patent designs may be secured from the Patent Office; patents and reissues are 25¢ each, while designs are furnished at 10¢ each. Copies should be ordered by number and title and a mention of the fact if they are either Designs or Reissues.

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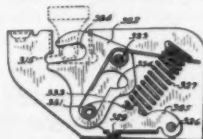
and extending downwardly toward the inlet, a bladed impeller secured to the shaft at the inlet, at least one swirl resisting vane and means for fixing the same above the impeller in a plane at an angle to the plane of rotation of the impeller, the blades of the impeller being positioned in the plenum chamber inlet and extending into the chamber to an extent of approximately ten to thirty percent of the height of the impeller blades.

2,802,629. **HEAT EXCHANGER.** Maurice H. Hofmeister, Morton Grove, Ill., assignor to Bell & Gossett Co.



6. A heat exchanger comprising a casing including bottom and top walls, a vertical inlet pipe extending through the bottom wall and having its delivery end terminating within the casing short of the top wall, an outlet for the casing, a coil positioned within the casing around the inlet pipe, and a baffle carried by the inlet pipe in encircling and transverse relation thereto for laterally directing across the coil fluid issuing from the delivery end of the pipe and having support contact with the bottom portion of the coil around the inlet pipe.

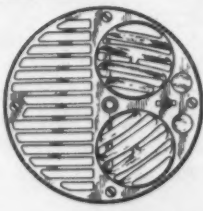
2,802,684. **LATCH MECHANISM.** Edwin B. Jacobson, Grand Rapids, Mich., assignor to Jervis Corp., Grandville.



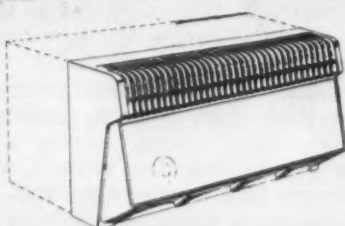
1. In a latch mechanism, a latch bolt pivotable between a keeper engaging position and a cocked position, a bolt actuator pivotable between a normal position and an energized position, spring means urging said bolt actuator toward said normal position, and a pair of cooperating cam elements, one of said elements being mounted on said latch bolt and the other on said bolt actuator, said bolt actuator when pivoting from said energized position to said normal position acting through said cam elements to urge said latch bolt toward engaging position.

DESIGNS

180,785. **COMBINATION REGISTER AND CONTROL MOUNT FOR AIR CONDITIONERS.** James C. Holby and Robert L. Westrum, Minneapolis, Minn., assignors to D. W. Onan & Sons, Inc., Minneapolis, Minn.



180,808. **AIR CONDITIONER CABINET OR SIMILAR ARTICLE.** Jeon O. Reinecke, Oak Park, Ill., assignor to Amana Refrigeration, Inc., Amana, Iowa.



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DESICCANTS AND DRIERS

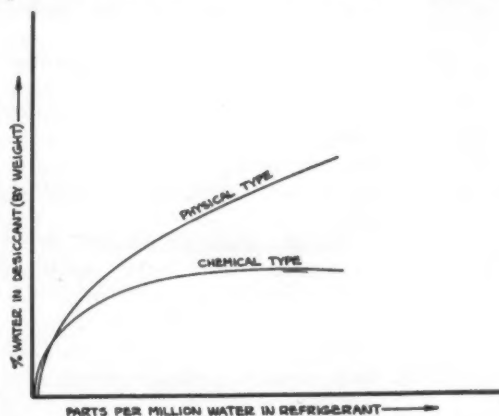


FIGURE 1
TYPICAL drying curves for physical and chemical types of desiccants are shown in the diagram at the right. Note sharp break of curve for chemical type of desiccants.

Part 2—Chemical, Physical Desiccants

By Frank J. Versagi

Mueller Brass Co., Port Huron, Mich.

Fig. 1 shows a typical drying curve for a chemical-type desiccant. If you follow the curve up from the point of origin, you will see that for the first few percent of water that the chemical-type desiccant picks up it can keep the amount of water in the refrigerant very low. After a point is reached, however, the curve becomes almost completely flat indicating that the material is no longer effective as a desiccant.

In practice, this means that a chemical-type desiccant is extremely effective while it is picking up water with which it can react chemically. When all its chemical activity is used up, however, it no longer dries the refrigerant.

Properly rated for the unit, a drier charged with a chemical-type desiccant has enough capacity to take care of normal service conditions. One popular drying agent can take up to 6% of its weight in water before its chemical activity is exhausted.

Generally speaking, chemical-type desiccants do not give up their water as readily as do physical-type desiccants when the liquid line temperature goes up.

In fact, reactivation temperatures for chemical-type agents

are quite a bit higher than those for the physical type. Some of the disadvantages of this type of desiccant will be considered when we discuss the entire drier function.

Look at Fig. 1 again. Notice the sharp break in the curve for the chemical-type desiccant. By contrast, the curve for the physical type is more gradual; in fact the drawing is a bit exaggerated for a good physical-type desiccant will show an even more vertical curve.

(To Be Continued)

Detroit ASRE Will View Eastland's Mechanical Facilities

DETROIT—Tour of the mechanical facilities of the new Eastland Shopping Center, Kelly at Eight Mile Rds., will highlight the kickoff meeting of the Detroit Section, American Society of Refrigerating Engineers, at 8 Tuesday night, Oct. 8, at Eastland.

Dinner will be served at 6:30, and Joseph Bobbio of Hyde & Bobbio, Inc. will discuss "Problems of Heating, Cooling & Ventilation at Eastland Shopping Center" at about 7:30 p.m. Charles Rouse, project engineer at the shopping center, will serve as guide on the tour.

Persons planning to attend the meeting are instructed to park in Lot 1, entering from Eight Mile Rd., and then proceed to the stairway between buildings A and H. The meeting room is located at the foot of the stairway.

Reservations for dinner must be in on or before Thursday, Oct. 3.



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AIR CONDITIONING sales engineer with experience in systems of all sizes. Must have management ability, be willing to relocate. Position offers many employee benefits, excellent opportunity for advancement. Reply to P.O. BOX 1244, Shreveport, Louisiana, stating age, education, experience, salary requirement. Replies held confidential.

COMMERCIAL REFRIGERATOR manufacturer is looking for district manager for Chicago territory. Initial groundwork is laid for an opportunity that will reward an aggressive, earnest man capable of supervising dealers and selling direct to chains, cooperating with voluntary groups, etc. Remuneration open for discussion; an equitable basis can be arrived at that should insure more earnings than you are now making. All replies confidential. Write BOX A5876, Air Conditioning & Refrigeration News.

NORMALLY, YOU don't answer classified. Nevertheless, you've nothing to lose, everything to gain by answering this one. All replies strictly confidential. We are a manufacturer with dealers in the Chicago area, a product that sells—but need a territory manager to work with dealers, appoint new ones, and sell direct to buyers where multiple units are involved. Commercial refrigeration or similar selling experience might be helpful, but we're will-

ing to train a man with good background who is ambitious. If you are earning under \$10,000 annually you'll still be considered if it is because you just haven't had time to arrive at that bracket. Write BOX A5877, Air Conditioning & Refrigeration News.

SERVICE MANAGER, to handle construction and service department of Carrier distributor-contractor in large Ohio city. Familiarity with Carrier products desirable, although not absolutely necessary. Experienced man preferred. Interview at our expense. Please write details and background BOX A5882, Air Conditioning & Refrigeration News. All replies held strictly confidential.

PROGRESSIVE MAJOR franchised dealership in Southern California offers job with unlimited opportunity to experienced commercial refrigeration and air conditioning servicemen with initiative and used to working on his own. Top compensation. Year-round. Write to BOX A5884, Air Conditioning & Refrigeration News.

WANTED; AIR conditioning and refrigeration installation and maintenance man: Man experienced with Carrier equipment preferred. Send resume of experience to BOX A5886, Air Conditioning & Refrigeration News.

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SURPLUS LOT of Tecumseh sealed in unit 1/4 h.p. compressors. 230 volt, 208 volt and 115 volt, single phase. Freon gas used. All new material from termination contract. We will sell at substantial discount from original price. Write, wire or phone, G. & M. MATERIALS CO., 12955 Hamilton Avenue, Detroit 3, Mich., Townsend 8-6839.

FOR SALE—Surplus inventory of Fiberglas one inch thick Number 800 and type A. Cut to sizes from 13" x 23" to 25" x 40" in original containers. KOCH ENGINEERING COMPANY, 321 West Douglas Ave., Wichita, Kansas.

BUSINESS OPPORTUNITIES

MANUFACTURER WANTED to undertake production of new built-in refrigerator. Market test proved, the exclusive feature and advantages of this construction shall with no doubt make it the most valuable in the built-in market. Manufacturer capable of supplying market demand will have sole assignment of patent. Address BOX A5887, Air Conditioning & Refrigeration News.

AIR CONDITIONING and heating contracting firm for sale. Thriving service and contracting business in Dallas, Texas. Year-round business with wonderful potentialities. Must sell at inventory due to other interests. Write BOX A5888, Air Conditioning & Refrigeration News.

Servicing Automobile Air Conditioners

(Vol. 2)

BY C. DALE MERICLE

The Airtemp unit is the seventh make to be discussed in the current series on automobile air conditioners. Makes previously described in this series were A.R.A., Artic-Kar, Frigette, Frigikar, Kauffman, and Mark IV. Several more makes by "independent" manufacturers will be reviewed in future instalments, following which units of most automobile manufacturers themselves will be described.

Models discussed in the current series are 1956 and/or 1957. For data on earlier models readers are referred to the original series of articles, which is available now in the handy manual, *Servicing Automobile Air Conditioners*.

For Your Reprint Copy

"Emergency Diagnosis, Repair of Hermetic Unit Electric Components," by John L. Zant, mail this ad with your name and address to: Air Conditioning & Refrigeration News, 450 W. Fort, Detroit 26, Mich. Only 25¢ each.

Airtemp (2)

Airtemp Div.
Chrysler Corp.
Dayton 1, Ohio

Controls

A three-position toggle switch mounted on the lower edge of the face of the evaporator case provides control of the blower. Blower is off when the switch is in center position. Other positions of the toggle switch give high or low blower speeds.

By-pass valve employed on early 1957 Airtemp systems is located above the receiver. It is connected into the discharge line from the compressor and to the evaporator inlet just beyond the expansion valve. The by-pass valve is a modulating type valve which responds to the temperature of the suction line at the evaporator outlet. Remote bulb of the by-pass valve's power element is installed in a well provided in the suction line.

Factory setting of the by-pass valve is such that the valve starts to open when the evaporator temperature drops to 30° F. and is fully open when the coil temperature drops to 26° F. By-pass valve setting can be adjusted in the field. When the valve opens, hot gas enters the evaporator beyond the expansion valve and thus raises the evaporator temperature.

Chief purpose of the by-pass valve is to prevent icing of the coil at high compressor speeds.

When a magnetic clutch is employed on the Airtemp by-pass system, an on-off toggle switch is provided on the evaporator case. This is wired in series with the blower, so the blower has to be turned on to low or high speed before the magnetic clutch can be turned on to engage the compressor.

A similar hookup is provided in the later 1957 Airtemp units employing a thermostatically controlled clutch (without the by-pass valve) as standard equipment. The blower has to be turned on before the clutch circuit can be energized.

Setting of the adjustable thermostat on the later 1957 models, which also has an "off" position, is controlled by a rotating knob on the evaporator case. When the system is operating, the thermostat cycles the clutch and compressor, depending on the setting of the thermostat. Bulb of the thermostat power element is located in a well in the suction line at the evaporator outlet.

Wiring

Schematic wiring diagram of the later 1957 Airtemp system employing a thermostat and

magnetic clutch is shown in Fig. 4.

SERVICE HINTS

Evacuating System

An automobile air conditioning system should be evacuated following initial installation or service work requiring opening of the system.

Airtemp recommends the use of a vacuum pump.

Prior to evacuation the system may be checked for leaks with a halide torch. During the evacuation process, the system should be pulled down to a vacuum of 26 to 28 in. and held there for at least five minutes. Failure to reach 26-in. vacuum would indicate a leak in the system. The leak, of course, would have to be located and repaired before evacuation can be completed.

Following the evacuation period, the vacuum is broken with refrigerant vapor.

Charging System

Refrigerant-12 is employed in the 1957 Airtemp automobile air conditioner. Complete charge is 2½ lbs.

The Airtemp system is charged through the low side with refrigerant vapor in the usual manner. For charging the car engine is operated at idle speed, the blower is turned on, and the magnetic clutch (if used) is engaged either by turning on the clutch toggle switch (on early 1957 units) or turning the thermostat control knob to "Cooler" (on later 1957 units).

Checking Oil

A filler plug is provided in the Airtemp V-type compressor on the left side, as viewed from the shaft end. This permits checking oil level in the compressor and adding or removing oil as required.

After a long, fast trip with the conditioner operating, a considerable amount of oil may have left the compressor crankcase, so under these circumstances the system should be operated 10 to 15 minutes to return oil to the compressor.

With both service valves back-

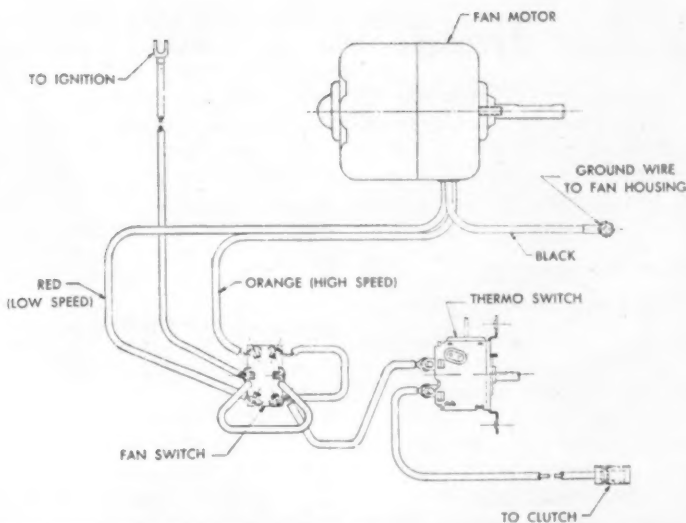


FIG. 4—Schematic wiring diagram of later 1957 Airtemp unit with thermostat and clutch.

seated to isolate the compressor from the rest of the system, the filler plug can be loosened to release gas pressure and then removed. Oil level should measure approximately 2 in. on a dipstick.

(To Be Continued)

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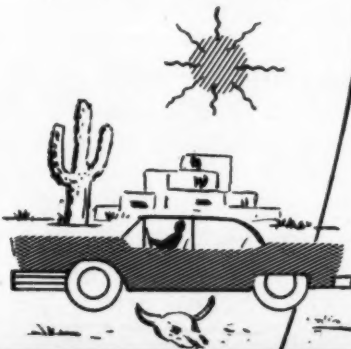
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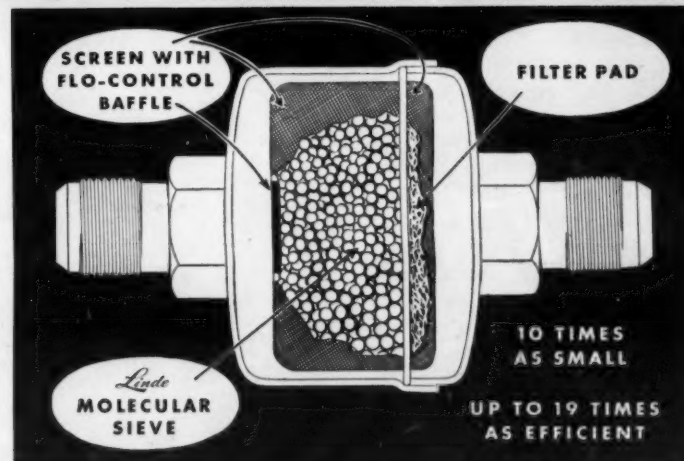
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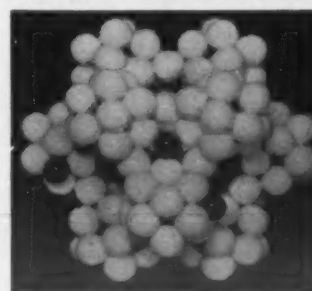
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'Keep Abreast of Cooling Trends'--

(Concluded from Page 1, Col. 3)

"Today there is no limit on the sizes of air-cooled condensers. The wholesaler should not hesitate to figure and sell air conditioning equipment up to 300 tons. You have the opportunity to sell that type of equipment. If you don't do it, it will be sold, but through other sources."

Al Lincoln of Dunham-Bush, Inc. told the wholesalers that today, not only the established refrigeration contractor was selling air conditioning equipment, but also to an increasing extent, the warm air heating contractor and particularly the plumbing and heating contractor.

'Up To Wholesaler To Train His Men'

These men need help, he indicated. It is up to the wholesaler to train his men—to equip them better technically—so they are able to teach these contractors how to do a better job in a less expensive way.

For the wholesaler who does this, he pointed out, there is a large dollar volume in air conditioning equipment to sell, and the market is expanding rapidly.

Bill Krack of Sporlan Valve Co. and John Schenk of Alco Valve Co. teamed up to impress on the wholesalers that with the advent of the air-cooled condenser and with greater interest in keeping the motor load at average capacity rating rather than designing it with reserve to meet peak pull down loads, the trend in packaged air conditioning is away from the capillary tube and back to the thermostatic expansion valve, as the best answer to the refrigerant control problem.

Paul Bodwell of The Bodwell Co., Inc., Harrisburg, Pa., pointed out to his fellow wholesalers that one of the causes of their absolescent stock problem is their failure to keep abreast of the times.

However, he recognized a number of other causes such as overloading on staples to get quantity discounts and buying too many gadgets.

'Inadequate Warning on Design Changes'

He suggested that manufacturers should share some of the blame by not giving the wholesaler adequate warning on design changes.

He further suggested that

wholesalers try to organize an exchange system among themselves or through the manufacturer for getting obsolete parts into the hands of the people who can use them.

Taking Advantage Of 2% Discount

R. Lotz of Virginia Smelting Co., pointed out ways the wholesaler might take advantage of the 2% cash discount, which, he said, in some cases means the difference between making a profit and breaking even.

These included keeping a close watch on inventory, turnover, and employing improved collection methods.

Charles Woodward of Refrigeration Suppliers, Norfolk, Va. proposed that consolidated freight bills to the manufacturer covering his total ship-

ments for a given period would lower the manufacturers transportation costs and would also help him to establish a total selling price to the wholesaler.

He also suggested that better packaging by some manufacturers would reduce the problem of damaged shipments, always a source of trouble to the wholesaler.

Poll on Joint Meetings

A poll on the question: Are these joint wholesaler-manufacturer meetings justified? brought unanimous approval (60 votes) from the wholesalers and a 29 to 3 vote in favor by manufacturers.

Harry Jaeger of Jaeger Sales & Supplies, Trenton, N. J. was elected chairman of Air Conditioning & Refrigeration Wholesalers Region III. Helmar Peterson of Merchant & Evans, Philadelphia was named organization secretary.

ACRA'S Proposed Refrigeration Code To Have Final Reading Oct. 13

MIAMI, Fla.—At the September meeting of ACRA (Air Conditioning & Refrigerating Association, Inc.), it was announced by Howard S. Davis, executive secretary, that the proposed code for the industry will come up for final reading on Oct. 13.

The code, strongly endorsed by ACRA, follows the B.9 Code now in use in many cities, and will, it is felt, resolve many of the difficulties now encountered due to various interpretations of local requirements.

The feature of the meeting, held at The Biscayne Terrace hotel, was a discussion of the Florida Lien Act of 1957, and its effect upon contractors, their "subs" and suppliers.

Legal interpretations of the law were given by Robert Camp-

bell, Miami attorney, who was followed by Kenneth Bailey, of the Surety Bond Dept., American Casualty Co., who discussed at length the position of the surety bond and the bonding company in relation to mechanics' liens.

Frigidaire's 5-Day Training Course Set In Detroit Oct. 7

DETROIT—Frigidaire Sales Corp. is offering a five-day training school on the fundamentals of refrigeration, Oct. 7 through 11, to be held at the General Motors Training Center here.

The school is designed specifically for appliance servicemen.

Each session will be begun at 8:30 a.m. and close daily at 4:30 p.m.

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